A study of valency-changing devices in Proto Oceanic

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Except where otherwise acknowledged in the text, this thesis represents the original research of the author

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abstract

This thesis presents a reconstruction of several valency-changing devices and a system of verb classes for Proto Oceanic. Proto Oceanic is the ancestor language of the Oceanic languages of the Pacific, a subgroup of the Austronesian language family.

A characteristic of many Oceanic languages, and indeed Proto Oceanic, is the presence of several valency-changing devices. Those examined in the thesis are: the transitive suffix **-i*; transitivising **akin[i]*; the causative prefix **pa[ka]-*; and the two valency-decreasing prefixes **ma-* and **ta-*. Reflexes of all of these forms are found in many Oceanic languages and all had previously been reconstructed for Proto Oceanic. This thesis uses the previous work on these devices as the starting point for describing them in more detail, in particular with respect to their functions and distributions. Chapters 3 to 7 look in detail at each of the five valency-changing devices, presenting descriptions of their reflexes in a number of modern Oceanic languages and a description of the Proto Oceanic form and its behaviour.

The investigation of valency-changing devices led to the study of morphosyntactic classes of verbs as it became clear that the valency-changing devices are best described as part of a system of verb classes since: (i) they had different uses with different types of verbs; and (ii) they occurred with only particular types of verbs. The proposed system of Proto Oceanic verb classes is presented in Chapter 2, along with an examination of verb classes in a number of modern Oceanic languages.

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abbreviations

A	subject of transitive verb	CMP	completive aspect
ABIL	abilitative	CN	common noun article
ABL	ablative	COMIT	comitative
ABS	absolutive	COMP	complementiser
ACC	accusative	CON	concomitant
ACC.PASS	accidental passive	CONC	*se* preposition (Kara)
ACT	active	CONJ	conjunction
Adm	Admiralties	cont	continued
ADJ, adj	adjective	CONT	continuative
ADJ	adjectiviser (Paamese)	CONST	construct suffix
ADV	adverb	CORE	non-nominative core article
AKI	reflex of **akin[i]*	CRL	Carolinian
AL	alienable suffix	DAT	dative
ALL	allative	DAT.OBJ	dative object
ANTI	anti-causative	DC	de-controlled prefix
APP	applicative	DEERG	de-ergativiser
ART	article	DEHOR	dehortative mood
ASP	aspect	DEIC	deictic
ASS	associative	DEM	demonstrative
BEN	benefactive	DEM	demotion (Kara)
BR	basic root	DET	determiner
C	consonant	DETR	detransitiviser
CAUS	causative	DIR	directional
cht	chapter	DIST	distal
CL	classifier	DISTPAST	distant past
CL.NAT	natural object possessive classifier	DL	dual
CMP	Central Malayo-Polynesian	EF	emphatic focus

eg.	for example
ERG	ergative
ES	echo-subject
EXC	exclusive
excl	exclamation (Lewo)
FACT	factative
FEM	feminine
Fij	Fijian
Fm	Formosan
FM	FOCUS MARKER
FREQ	frequentive
FUT	future tense
GEN	genitive
HAB	habitual
HORT	hortatory
ILL.FORCE	illocutionary force marker
IMP	imperative
IMP	imperfective (Teop)
IN	inchoative complement taking verb (Acehnese)
INC	inclusive
INDEF	indefinite
INST	instrumental
INTR	intransitive
INTR	intransitivising affix (Tamambo)
INV	involuntary
IP	independent pronoun
IRR	irrealis mood
KIR	Kiribatese (Gilbertese)
KSR	Kosraean (Kusaiean)
L.CAUS	locutional causative
LINK	possessive linker
LOC	locative
Mic	Micronesian
MKL	Mokilese
MM	Meso-Melanesian
MSH	Marshallese
N, n	noun
n.d.	no date
N-E	North-East
NEG	negative
NEG.IMP	negative imperative
NL	nominaliser
NM	noun marker
NNG	North New Guinea
NP	noun phrase
no.	number
NOM	nominaliser
NOM	nominative core article (Tukang Besi)
NONFUT	non-future tense
NONPAST	non-past tense
NSG	non-singular
NUM	numeral
O	object marker (in glosses)
O	object of transitive verb
O2	second object
OBJ	object, object marker
=OBJ	object enclitic
OBL	oblique article (Tukang Besi)

O/P	object/possessive marker	POSS	possessive
p	plural	POSS.CL	possessive classifier
P	possessive pronominal	PROG	*pe* preposition (Kara)
PANI	reflex of **pani*	PWMic	Proto Western Micronesian
PASS	passive	REC	reciprocal
PAST	past tense	REDUP	reduplication
PART	participial prefix (Banoni)	REL	relative clause marker
PERF	perfective aspect	REP	repeating action
pers.comm.	personal communication	REQ	requestive
PF	perfective marker	REST	restrictive particle
pl, PL	plural	RESULT	resultative
PLP	Pingalapese	RL	realis mood
PM	person marker	s	singular
PMic	Proto Micronesian	S	subject of intransitive verb
Pn	Polynesian	S	subject marker (in glosses)
PNG	Papua New Guinea	SAY	grammaticised use of 'say' verb (Roviana)
PNT	Proto Nuclear Trukic	SEQ	sequential
POc	Proto Oceanic	SES	Southeast Solomonic
PON	Ponapean	sg, SG	singular
PP	prepositonal phrase	SHWNG	South Halmahera/West New Guinea
PREP	preposition	SIMUL	simultaneous
PRES	present tense	SM	subject marker
PRO	pronominal	S.O.	someone
PRT	particle	SO	Southern Oceanic
PT	Papuan Tip	SPON	spontaneous
PTP	Proto Trukic-Ponapeic	SS.	Saints
PURP	purposive	sth	something
PUL	Puluwat	St.M	St Matthias
PN	proper noun article	subj=	subject proclitic

TA	tense/aspect marker	VI	intransitive verb
THC	thematic consonant	VI (PASS)	passive intransitive verb
TEL	telic aspect	VN	neutral verb
TNS	tense marker	VT	transitive verb
TO:3	away from speaker & hearer	w/	with
TOP	topic marker	WMP	Western Malayo-Polynesian
TP	Tok Pisin	WOL	Woleaian
TR	transitive	X, Y	used with arguments to denote
TRK	Chuuk (Trukic)		a semantic role
u	unmarked number	*	reconstructed item
U	Undergoer	**	ungrammatical structure,
UV	Utupua and Vanikoro group		expected, but non-occurring,
V	verb		form
V	vowel	1	first person
vb	verb	2	second person
VC	verb complex	3	third person

1 *introduction*

> ..... it is impossible that it should be accidental ..... it must have survived no one can tell what vicissitudes and changes, in a course of years which no one can number, and presents itself, like a rare species of plant or flower in isolated and widely separated localities, a living certain proof of common origin and kindred.
>
> (Codrington 1885: 189)

So Codrington (1885) comments on prefixes in the Malagasy language of Madagascar and languages of the Banks Islands in Vanuatu that show striking resemblance in both form and function.

1.1 AIMS OF THIS STUDY

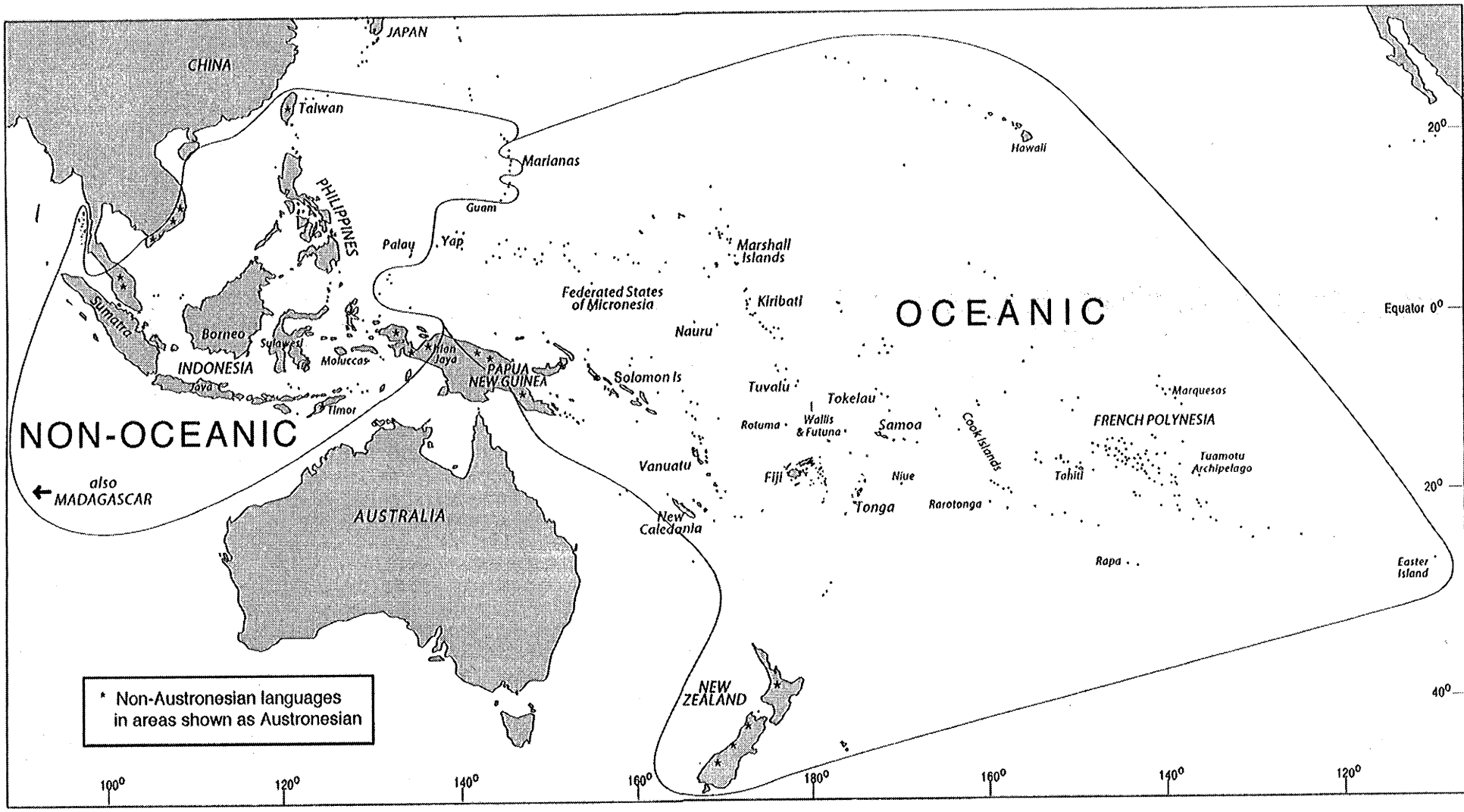
This study looks at such shared features not to provide proof of common origin, but rather to provide a reconstruction of the original ancestor language. The existence of Proto Oceanic, the ancestor of the modern Austronesian languages of the Pacific Islands and coastal Papua New Guinea, has long been recognised and many features of it have already been reconstructed. The aim of this thesis is to present a reconstruction of the system of verb classes and valency-changing devices of Proto Oceanic. While previous studies have looked at such issues and indeed reconstructed the verb classes and valency-changing devices, this thesis builds on these earlier works to provide a more detailed account of the Proto Oceanic system, especially in terms of the function and distribution of the valency-changing devices. It is the study of the valency-changing devices which allows a more detailed reconstruction of the system of verb classes in Proto Oceanic to be put forward. As part of the reconstruction of the Proto Oceanic system, the thesis also examines and presents the verb class systems and valency-changing devices of various modern Oceanic languages.

1.2 The Oceanic subgroup and Proto Oceanic

The Oceanic languages form a subgroup of the larger Austronesian family, the languages of which are spread from Madagascar in the west through Indonesia, the Philippines and Taiwan and east into the Pacific as far as New Zealand, Hawai'i and Easter Island. The languages comprising the Oceanic subgroup are located east of 138° longitude including some along the north coast of West Papua, in coastal enclaves and on off-shore islands of Papua New Guinea, and in the Solomon Islands, Vanuatu, New Caledonia, Fiji, Polynesia and most of Micronesia, excluding Belau and Chamorro in the Mariana Islands. Map 1.1 shows the location of Oceanic and non-Oceanic languages of the Austronesian language family.

The genetic relationships among the Austronesian languages were recognised in the 1700s by the comparison of word lists from Madagascar, Indonesia and Polynesia. The Oceanic subgroup within Austronesian was first recognised by Kern (1886) in a study of the relation of several Fijian languages to those of Polynesia and Indonesia. However, it was Dempwolff (1937) who put forward a set of innovations as evidence for a subgroup including all of the Melanesian and Polynesian and nearly all the Micronesian languages, but excluding the western languages of Indonesia and the Philippines. He reconstructed a sound system for the common ancestor of these languages identifying a number of shared phonological innovations from comparison with his earlier reconstructions of the Proto Malayo-Polynesian sound system. Proto Malayo-Polynesian is the ancestor of all the Austronesian languages outside of Taiwan[1]. Some of Dempwolff's phonological innovations have since been proved to not be innovations of the group as a whole, but others, like the merger of voiced and voiceless pairs such as **b* and **p* and **g* and **k*, and the merger of diphthongs with plain vowels, such that **e* and **aw* merged as **o*, and **i* and **uy* as **i*, are still seen as innovations which define the Oceanic subgroup. There are also several lexical innovations which define the Oceanic subgroup; forms that appear to be cognate with Proto Austronesian forms, but have undergone irregular sound changes, including:

[1] The ancestor language of all Austronesian languages, including those of Taiwan, is called Proto Austronesian.



Map 1: Oceanic and non-Oceanic Austronesian languages

Proto Oceanic	Proto Austronesian	
*au	*aku	*I*
*mai	*maRi	*come*
*suRi	*[d,D]uRi	*bone*
*pati	*e(m)pat	*four*

Classifying a group of languages as comprising the Oceanic subgroup defined by a set of innovations implies that these languages are descended from a single ancestor language, in this case Proto Oceanic. Evidence for the reconstruction of this proto-language comes from two sources: (i) the modern Oceanic languages, determining features likely to have been retained from Proto Oceanic; and (ii) the modern non-Oceanic Austronesian languages, indicating types of features likely to have been inherited by Proto Oceanic. This thesis is primarily concerned with the reconstruction of Proto Oceanic on the basis of the modern Oceanic languages, but non-Oceanic Austronesian languages are often considered in order to provide external evidence for the reconstruction of some feature, particularly when the reconstruction is unclear on the basis of the Oceanic evidence alone.

The internal subgrouping of Oceanic is important in determining the type of distribution of a feature that is needed for it to be considered a retention from Proto Oceanic and thus reconstructable. Generally in Oceanic studies (see Pawley 1972, 1973, Ross 1988, Lynch, Ross & Crowley in press) a feature is considered reconstructable for Proto Oceanic, if reflexes of it are found in two or more primary subgroups of Oceanic and in languages which are not geographically close. With this aim in mind, it is better to follow a subgrouping which posits larger groups rather than small ones. In this way a more extensive distribution of a feature is needed for a reconstruction to be made, and the reconstruction is more conservative, and less likely to be a feature of an intermediate ancestor language. There are three primary subgroups of Oceanic[2]:

(i) the Admiralties family
(ii) the Western Oceanic linkage[3]
(iii) Central/Eastern Oceanic

[2] The subgrouping followed here is that presented in Chapter 5 of Lynch, Ross and Crowley (in press).
[3] A linkage is a group of languages proposed to have descended from a dialect network. There is no single innovation shared by all the languages of the linkage, but a set of innovations shared by different overlapping groups within the linkage. See Ross (1988, 1997) for a discussion of the differences between linkages and subgroups.

There are three Oceanic languages which do not fit into any of these groups. These are Yapese, spoken on the island of Yap in Micronesia, and Mussau and Tench, two languages spoken on the St. Matthias islands of Papua New Guinea. Mussau and Tench are related languages, forming the St. Matthias family (St.M). Yapese and the St. Matthias family may be in themselves primary subgroups of Oceanic. Map 1.2 shows the location of the primary subgroups of Oceanic, including Yapese and St. Matthias.

The Admiralties family (Adm) comprises two groups: Eastern and Western. The Eastern Admiralties group consists of the languages of Manus Island, Papua New Guinea, and its offshore islands. The Western Admiralties group consists of the Wuvulu, Aua and Seimat languages of the small western islands. Data on the Admiralties languages is scarce, but for one language, Loniu, there is a detailed grammatical description (Hamel 1994).

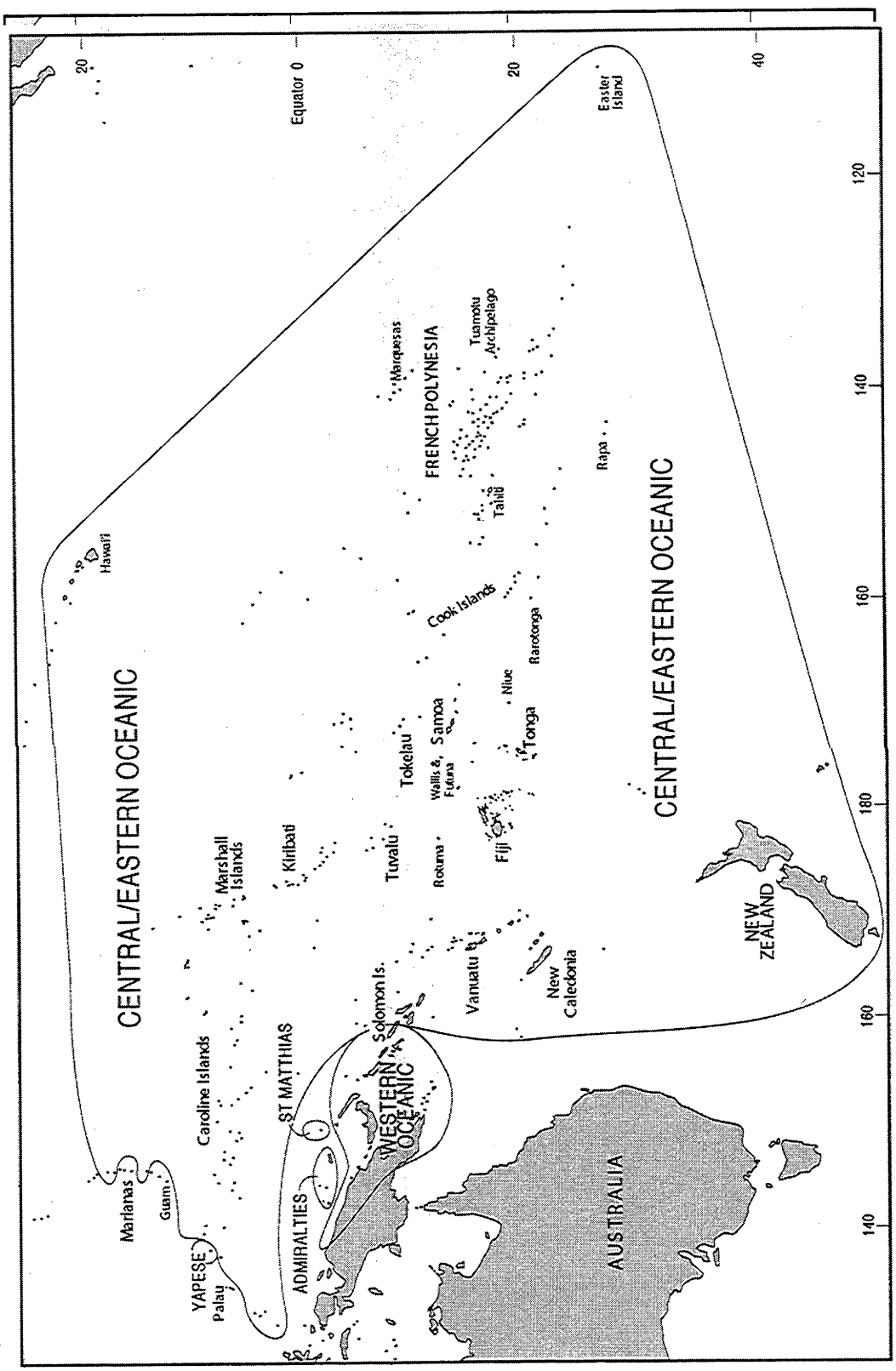
The Western Oceanic linkage comprises three smaller linkages:

(i) the North New Guinea linkage
(ii) the Papuan Tip linkage
(iii) the Meso-Melanesian linkage

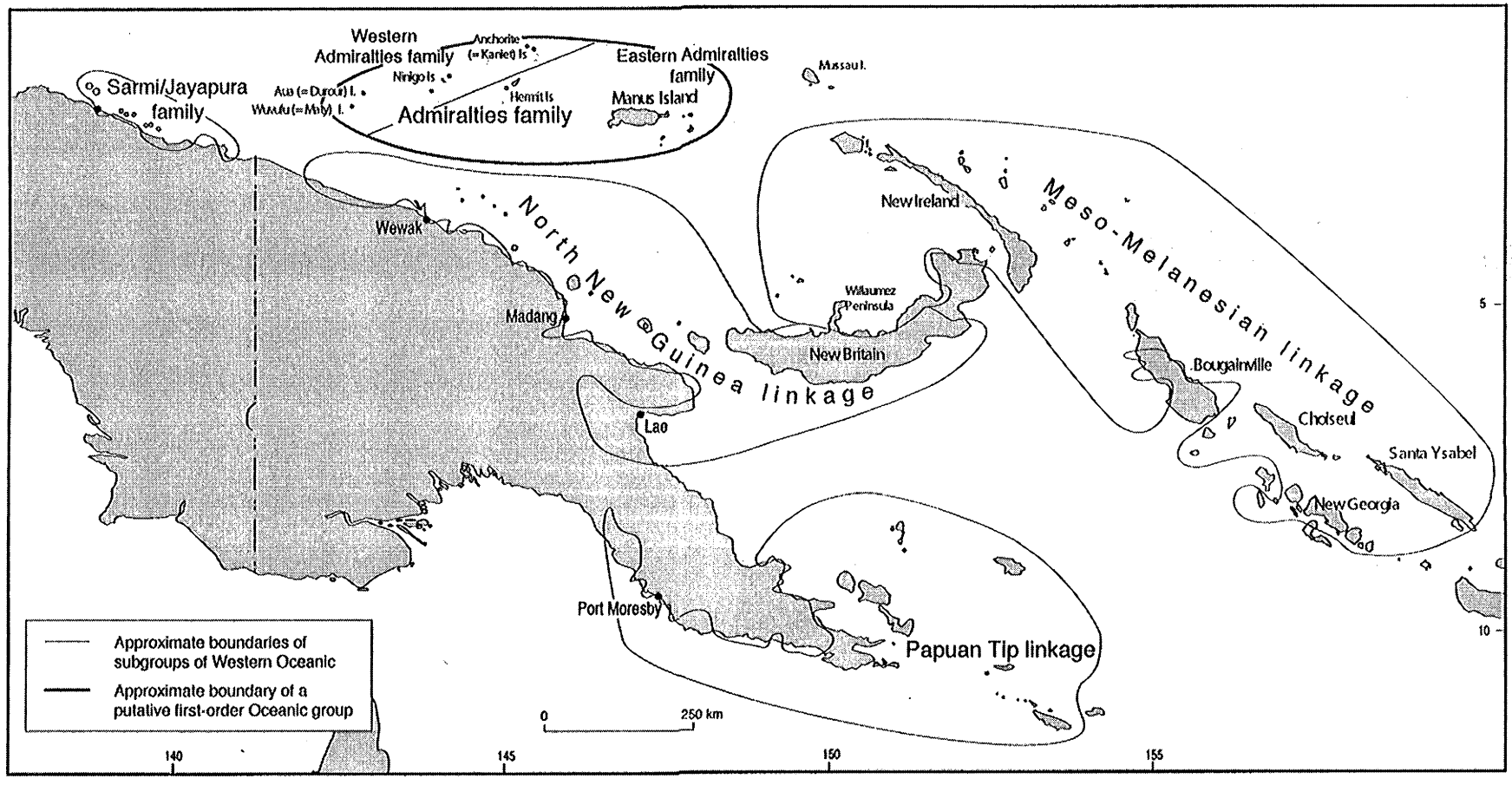
Languages of the North New Guinea linkage (NNG) are spoken in southwest New Britain and on the New Guinea mainland around the Huon Peninsula and along the north coast. There is a detailed description available for Manam (Lichtenberk 1983) and it is frequently referred to in the thesis. Languages of the Papuan Tip linkage (PT) are spoken in coastal areas on the tip of Papua New Guinea and its offshore islands. Tawala (Ezard 1997) and Saliba (Margetts 1999) are two Papuan Tip languages for which grammatical descriptions are available and for Motu there is a dictionary (Lister-Turner & Clark 1954). Languages of the Meso-Melanesian linkage (MM) are spoken on north New Britain, New Ireland and Bougainville and their offshore islands and also the Solomon Islands of Choiseul, New Georgia and Santa Ysabel. There is a detailed grammatical description of Hoava (Davis 1997), which is used in this thesis.

Map 1.3 shows the location of the Admiralties subgroup and the Western Oceanic linkages.

The status of Central/Eastern Oceanic as a subgroup or a linkage is unclear. Lynch and Tryon (1985) put forward fifteen morphological features that they found to be shared by all Oceanic languages outside of the Admiralities, Western Oceanic, Yapese, St. Matthias and New Caledonia. Later work by Lynch (n.d.-a) indicates that



Map 1.2: Possible primary subgroups of Oceanic



Map 1.3: Admiralties and Western Oceanic subgroups

the closest relatives of the New Caledonian languages are those of Southern Vanuatu, putting such languages also into Central/Eastern Oceanic. Central/Eastern Oceanic languages do not share any phonological innovations, and some of the morphological features presented by Lynch and Tryon (1985) have since be shown to be shared by Admiralties and Western Oceanic languages. This means that such features are likely to be retentions from Proto Oceanic. There is evidence that the Central/Eastern Oceanic languages formed a linkage with innovations shared between two or more of its constituent groups. For example, between Southeast Solomonic and Micronesian (Blust 1984), between North/Central Vanuatu, South Vanuatu and New Caledonia (Geraghty 1989, Lynch 2001), between Fijian and Polynesian (Geraghty 1983) and among Southeast Solomonic, North/Central Vanuatu, Fijian and Polynesian (Geraghty 1990). It is possible that the immediate ancestor language of the Central/Eastern Oceanic languages was in fact Proto Oceanic, however, a feature will not be considered reconstructable for Proto Oceanic if it is found only in Central/Eastern Oceanic languages. Five groupings can be recognised within Central/Eastern Oceanic:

(i) Southeast Solomonic
(ii) Utupua and Vanikoro
(iii) Southern Oceanic
(iv) Central Pacific
(v) Micronesian

Southeast Solomonic languages (SES), as their name suggests, are spoken on the southeast islands of the Solomon Islands. The detailed grammatical descriptions and dictionaries of several languages from this group and their apparent conservatism means that they feature strongly in any reconstruction of Proto Oceanic. Two languages which are referred to frequently in this thesis are Longgu (Hill 1992, n.d.) and Kwaio (Keesing 1975, 1985). The Utupua and Vanikoro group (UV) comprises six languages spoken on islands of the same names in the Santa Cruz group of the Solomon Islands. For these languages there is no decent grammatical description. The Southern Oceanic linkage (SO) consists of all the languages of Vanuatu and New Caledonia. Several languages from Vanuatu are mentioned in this thesis including North-East Ambae (Hyslop 1998), Tamambo (Jauncey 1997) and Paamese (Crowley 1982), and a New Caledonian language referred to is Tinrin (Osumi 1995). The Central Pacific linkage comprises the Fijian dialect network (Fij), Rotuman, spoken on the island of Rotuma, and the Polynesian family (Pn). Central Pacific languages which are referred to often include Boumaa Fijian (Dixon 1988), Wayan Fijian (Pawley & Sayaba n.d.), Samoan (Mosel & Hovdhaugen 1992) and Tongan (Churchward 1953). The Micronesian family (Mic) includes all the languages of Micronesia except Palauan and Chamorro which are non-

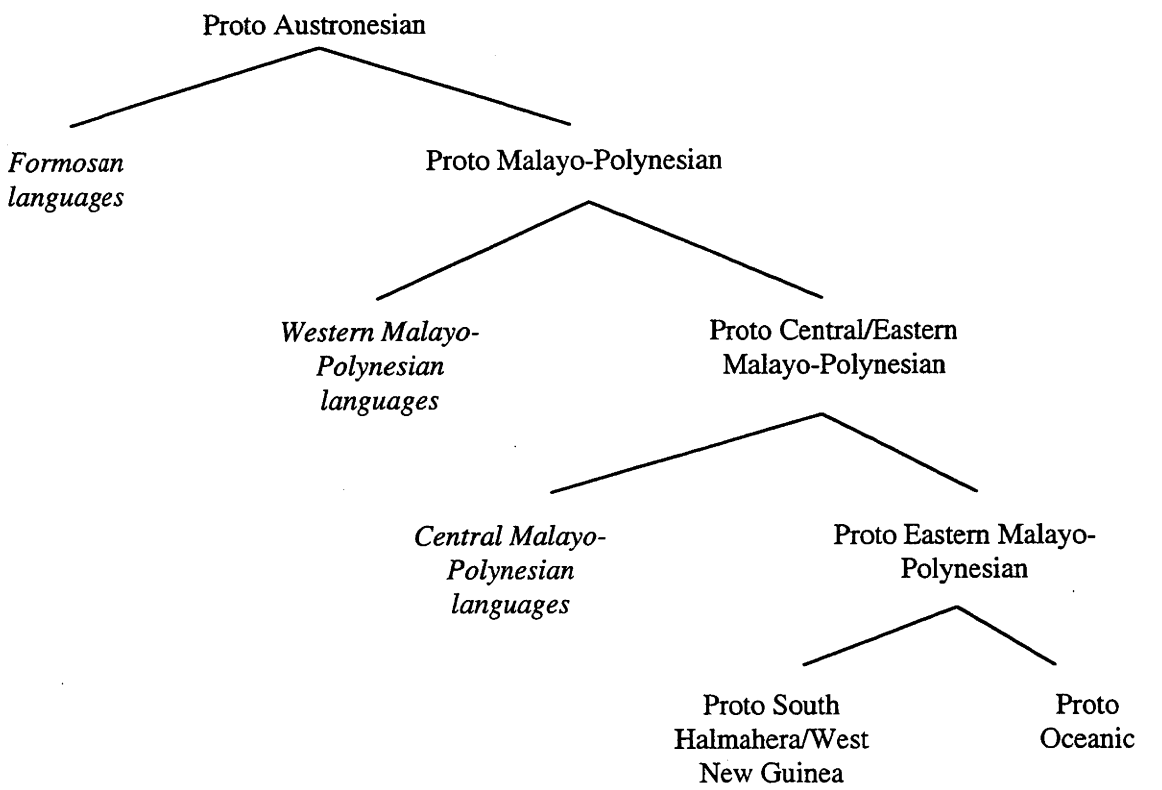
Oceanic Austronesian languages, Yapese, and the Polynesian outlier languages. Several Micronesian languages are used in this study, and in particular Woleaian (Sohn 1975 and Sohn & Tawerilmang 1976), for which both a grammatical description and a dictionary are available[4].

Map 1.4 shows the locations of the groupings within Central/Eastern Oceanic.

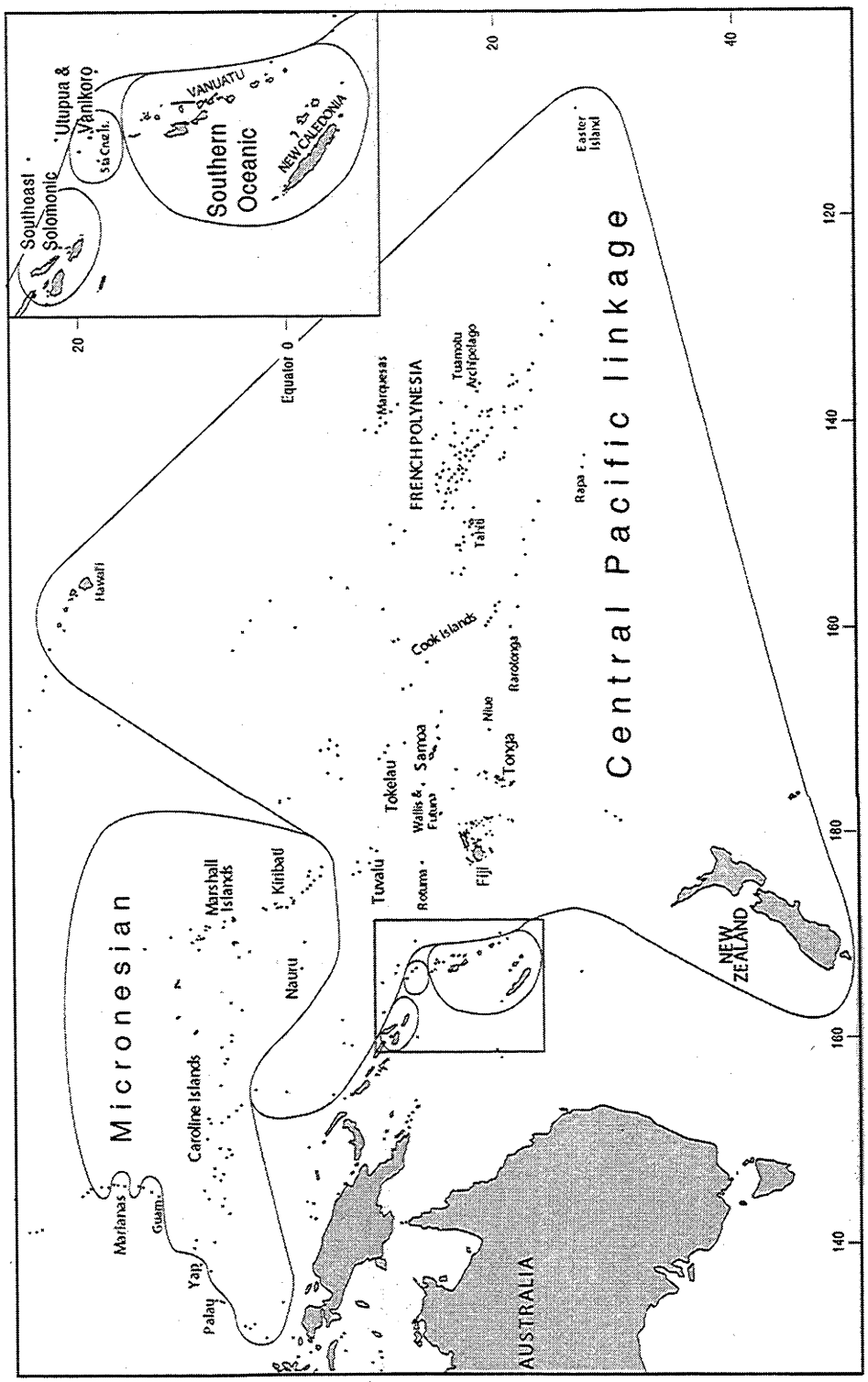
The subgrouping of non-Oceanic Austronesian languages is more controversial than the subgrouping of Oceanic languages. Figure 1.1 presents a schematic diagram of the proposed higher order groupings of Austronesian languages. These groupings follow Blust (1977b, 1978, 1982) and are generally used as a working hypothesis within Austronesian studies.

[4] The particular languages mentioned in the preceding paragraphs form the core of the data sample used in the thesis. Such a sample was not determined at the beginning of the project, but has come together throughout the course of the research. They are all languages for which there are sufficiently detailed grammatical descriptions and/or dictionaries to enable the comparison of functions and distributions of particular morphemes. And are also languages which were found to reflect unambiguously the different morphemes to be considered. Some areas, such as the Admiralties, southern Vanuatu and New Caledonia, are not well represented. This is due in part to the fact that there are only a few grammatical descriptions of such languages and so sufficiently detailed information about particular morphemes was often not available.

Figure 1.1: Schematic diagram of proposed higher order groupings of Austronesian languages



The Malayo-Polynesian languages, all the Austronesian languages other than the Formosan ones of Taiwan, form a well-established group and Proto Malayo-Polynesian is readily reconstructable. The Austronesian languages of the Philippines, Sarawak, Sabah and the Malay Peninsula in Malaysia, the Indonesian islands of Kalimantan, Sumatra, Sulawesi, Java, Bali and Lombok, and the island of Magagascar, are usually labelled Western Malayo-Polynesian languages. However, there is no clear evidence that these languages form a closed genetic group. The Central/Eastern Malayo-Polynesian group is also not well-supported as a genetic group, but certain lexical and semantic innovations do suggest that there was probably a language Proto Central/Eastern Malayo-Polynesian. The Austronesian languages of the Lesser Sunda Islands and central Moluccas in Indonesia are grouped together as Central Malayo-Polynesian languages. While there are a number of innovations which link groups of Central Malayo-Polynesian languages, there is little evidence that these languages form a closed subgroup. Proto Eastern Malayo-Polynesian was the ancestor of two languages: Proto South Halmahera/West New Guinea and Proto Oceanic. Proto South Halmahera/West New Guinea is characterised by several phonological innovations relative to Proto Malayo-Polynesian, and is the ancestor language of the Austronesian



Map 1.4: Major subgroups within Central/Eastern Oceanic

languages in the south-east of Halmahera Island and in the Bird's Head region of West Papua in Indonesia[5].

The first mention of an Oceanic language in a chapter is followed by an abbreviation indicating its subgroup. Appendix A gives a list of the languages mentioned in the thesis along with their geographical location, subgroup and its abbreviation, and the source used. Non-Oceanic Austronesian languages are also included in Appendix A, and are described in terms of the groupings shown in Figure 1.1.

1.3 THE VERB COMPLEX IN MODERN OCEANIC LANGUAGES

Oceanic languages have what can be called a verb complex, that is a verb and its accompanying morphemes[6]. Grammatical categories often indicated in the verb complex include:

(i) person and number of the subject;
(ii) tense/aspect/mood
(iii) person and number of the object; and
(iv) the valency of the clause

Example (1) from North-East Ambae (SO) is a clause where all four of these categories are overtly indicated, demonstrating a commonly found structure of verb complexes in Oceanic languages.

	(i)=(ii)	VERB-(iv)=(iii)
1)	no=mo	tangi-hi=go
	1SGS=RL	cry-APP=2SGO
	I am crying for you	

(Hyslop 1998: 333)

The category which is examined in this thesis is that of valency, and is described in section 1.3.1. The marking of the person and number of the object is relevant to the marking of transitivity and is described briefly here and is referred to elsewhere in the

[5] More detailed descriptions of Austronesian and also Oceanic subgrouping are given in Pawley and Ross (1993), Ross (1995b), Tryon (1995a, 1995b) and Lynch, Ross and Crowley (in press).
[6] Typological descriptions of Oceanic languages are found in Lynch (1998) and Lynch, Crowley and Ross (in press).

thesis. The marking of the person and number of the subject and of tense/aspect/mood is described briefly here to aid in the analysis of examples, but neither are considered further in this thesis.

Pre-verbally the verbal complex in many Oceanic languages consists of markers of the person and number of the subject and of tense/aspect/mood. In (2), from Woleaian (Mic), the verbal complex is in square brackets. Before the verb there is the 3sg subject marker *ye* and the perfective aspect marker *sa*. In this clause the subject marker cross-references the subject noun phrase *sar yeel* 'the child'. However, as in (3), also from Woleaian, the subject marker in many Oceanic languages is often the only overt indication of the subject in the clause.

2) [ye sa temwaaiu] sar yeel
3sgS PERF sick child DEM
This child is sick.

(Sohn 1975: 254)

3) ye teo tag
3sg climb up
He climbed up.

(Sohn & Tawerilmang 1976: 149)

In languages like Woleaian the subject markers and the markers of tense/aspect/mood are clearly separate morphemes. In North-East Ambae, as in (1), the subject markers are proclitics which attach to the verb, or to the aspect marker when it is present. In other languages, like Manam (NNG), there is a single pre-verbal morpheme which indicates both the person and number of the subject and the mood, as shown in (4) and (5). In (4) the verbal prefix *u-* indicates both 1sg subject and realis mood, and in (5) the prefix *go-* indicates both 2sg subject and irrealis mood.

4) ʔái u-bázi-di
stick 1sg.RL-carry-3pl.OBJ
I carried the stick.

(Lichtenberk 1983: 125)

5) dináu go-stretîn-di
debt 2sg.IRR-straighten-3pl.OBJ
Pay (lit: straighten) your debts.

(Lichtenberk 1983: 623)

Many Oceanic languages, outside of Polynesia, have post-verbal morphemes, usually enclitics or suffixes, which indicate the person and number of the object. By definition such markers occur only with transitive verbs, and in the descriptions of Oceanic languages are often given as the formal criterion that distinguishes an intransitive verb from a transitive one. In (4) and (5) above, from Manam, the object marker is the verbal suffix *-di*. In (6) below, from North-East Ambae the object marker is the enclitic *=eu*.

6) retahi-ku mo gato-gi=eu.
mother-1SGP RL speak-APP=1SGO
My mother told me off.

(Hyslop 1998: 338)

1.3.1 VALENCY-CHANGING DERIVATIONS AND DEVICES

The valency of clauses and their predicates is usually defined in terms of the number of core arguments required within the clause. Thus intransitive predicates and clauses have a single core argument and transitive predicates and clauses have two core arguments.[7] In many Oceanic languages intransitive and transitive verbal predicates are formally distinguished. With some verbs this simply means that when used transitively they take an object marker, whereas when used intransitively they do not. For example, in (7) from Hoava (MM), the intransitive form of the verb *tuke* 'be thrown away' is unmarked, whereas in (8), this verb is used transitively and is marked with an object suffix *-a*. With other verbs the intransitive and transitive forms are formally distinguished by the presence of one of the valency-changing devices. In (9), from Longgu (SES), the verb *mae* 'to die' occurs intransitively and is unmarked, whereas in (10) this verb is used transitively and is marked with the transitive suffix *-si*. As a transitive verb this form also takes an object suffix.

[7] Hopper and Thompson (1980) describe transitivity not as simply a binary distinction, but as a continuum, and the presence of a second participant is only one parameter of transitivity. The categories of intransitive and transitive as used in this thesis are morphosyntactically define. That is, if a verb occurs with an object noun phrase and/or takes transitive marking, such as valency-changing morphology and/or object suffixes, then it will be considered transitive. Lack of an object noun phrase and/or transitive marking means that the verb will be considered intransitive. Sometimes morphosyntactic transitivity and semantic transitivity do not coincide. For example, while verbs with meanings like 'hit', 'cut' and 'kill' are semantically transitive in that two participants are involved in the situations denoted, they can occur without an object noun phrase and/or transitive marking and in such clauses are morphosyntactically intransitive.

7) tuke sa leboto
be.thrown.away ART:SG bushknife
The bushknife was thrown away.

(Davis 1997: Section 5.2.2)

8) tuke-**a** rao sa leboto
be.thrown.away-**TR:3sgO** PRO:1sg ART:SG bushknife
I threw the bushknife away.

(Davis 1997: Section 5.2.2)

9) geni e mae na
woman 3sg die PERF
The woman is dead.

(Hill 1992: 64)

10) e mae-**si**-a malaria-i
3sg die-**TR**-3sg malaria-SG
He/she died of malaria.

(Hill 1992: 66)

The majority of verbs in most Oceanic languages are unmarked when used intransitively and marked by a valency-changing device and/or object marker when used transitively. However, many languages also have a number of verbs with morphologically-marked intransitive forms. For example, *vutu* 'to uproot sth.' from North-East Ambae has an unmarked transitive form as in (11)[8]. When used intransitively, as in (12), this verb is marked by the valency-changing prefix *ma-*[9].

11) langi u vutu na matui.
wind TEL uproot ACC coconut
The wind uprooted the coconut tree.

(Hyslop 1998: 331)

12) matui u **me**-vutu.
coconut TEL **ANTI**-uproot
The coconut tree has been uprooted.

(Hyslop 1998: 331)

[8] In North-East Ambae the object enclitics do not co-occur with an object noun phrase. Thus in (11), *vutu* 'to uproot sth.' is used transitively, but without an object enclitic, as the object is expressed as a noun phrase.
[9] In this clause *ma-* is realised as *me-* due to vowel-height assimilation rules.

A characteristic of many Oceanic languages is the presence of several valency-changing devices, and morphosyntactic classes of verbs can be established on the basis of the device or devices with which they can occur. The other feature on which morphosyntactic classes of verbs are established is the relationship between the intransitive and transitive forms of a verb. Before looking at the types of valency-changing devices found in Oceanic languages, a summary of the way in which valency-changing derivations are described is given. There are two basic types of valency-changing derivations: valency-increasing ones, with which an extra core argument is added to the structure of the predicate, and valency-decreasing ones, with which a core argument is removed from the structure of the predicate. Each of these types of derivations can be further classified into two types on the basis of the correspondence between the single core argument of the intransitive form of a verb and one or other of the core arguments of the transitive form.

For clarity of presentation it is useful to describe the core arguments of predicates in terms of the three grammatical functions S, A and O, following Dixon (1979). Andrews (1985: 68) defines these grammatical functions in the following way:

> If an NP [noun phrase] is serving as argument of a two-argument verb, and receiving the morphological and syntactic treatment normally accorded to an Agent of a PVT [primary transitive verb], we shall say that it has the grammatical function A; if it is an argument of a verb with two or more arguments receiving the treatment normally accorded to the Patient of a PVT, we shall say that it has the grammatical function O. .... An NP in an intransitive sentence that is receiving the treatment normally accorded to the single argument of a one-argument predicate will be said to have S function.

A primary transitive verb is defined as one which takes two arguments; one denoting an agent participant and one denoting a patient participant. The reason such verbs are used as the basis for determining the A and O functions is that they are often the grammatical model for other types of verbs (Andrews 1985: 68). More simply, S, A and O can be described as the single argument of an intransitive verb, the subject of a transitive verb and the object of a transitive verb, respectively. While in many Oceanic languages the S and A grammatical functions behave syntactically and morphologically in the same way and can be described in terms of the single grammatical relation subject, valency-changing derivations can be more precisely and simply described in terms of the three grammatical functions.

Valency-increasing and valency-decreasing processes may, depending on the verb, have two different syntactic effects on the grammatical functions. The S argument of the intransitive form of the verb can correspond to either the A argument or the O argument of the transitive form of the verb. The grammatical functions correspond in the sense that the semantic role of the participant expressed as the S argument of the intransitive form is the same as the semantic role of the participant expressed as either the A or O argument of the transitive form of the verb. For example, (13) and (14), from North-East Ambae, show the intransitive and transitive forms of the verb *sala* 'be lost'. The participant denoted by S in (13) has the role of patient, it is the thing lost. In the transitive clause in (14), the patient participant is expressed as the O argument. Thus the relationship between these two predicates is one where the S and O arguments correspond. The relationship between the two clauses is also a valency-increasing one, as the intransitive form of the verb is unmarked and the transitive form takes the prefix *vaga-*. Examples (15) and (16) demonstrate the other type of valency-increasing derivation. In (15) the verb *laka* 'to be noisy' is used intransitively and the S argument denotes the participant making the noise. In (16) this verb is used transitively with the suffix *-si*, and the participant making the noise is expressed as A. Thus the S and A arguments correspond.

13) **[bule-ku ring]**$_S$ u sala.
CL.NAT-1SGP ring TEL lost
My ring is lost.

(Hyslop 1998: 348)

14) [gu]$_A$ vaga-sala-gi **[na bule-ku ring]**$_O$
2SGS:TEL CAUS-lost-APP ACC CL.NAT-1SGP ring
You lost my ring.

(Hyslop 1998: 349)

15) re maresú **[ne]**$_S$=mo laká
PL children 2NSGS=RL make.noise
Kids! You're being noisy!

(Hyslop 1998: 333)

16) **[ne]**$_A$=mo laka-si [netu-ku]$_O$ mo rada.
2NSGS=RL make.noise-APP child-1SGP RL wake
You disturbed my baby, making him wake up.

(Hyslop 1998: 333)

Examples (17) to (20) show the same types of correspondences between the grammatical functions of the intransitive and transitive forms of a verb, but here the

derivation type is a valency-decreasing one. In (17) the verb *kore* 'to break' is used transitively. In (18) this verb is used intransitively with the prefix *ma-*. The S argument of (18) and the O argument of (17) correspond in that both denote the patient participant. Example (19) shows the use of the transitive form of the verb *gani* 'to eat'. In (20) this form is reduplicated and is intransitive. The S argument of (19) and the A argument of (20) correspond in that both denote the agent participant.

17) [nu]$_A$ kore **[na gai]**$_O$
1SGS:TEL break ACC wood
I broke the stick.

(Hyslop 1998: 330)

18) **[gai]**$_S$ u ma-kore
wood TEL ANTI-break
The stick is broken.

(Hyslop 1998: 330)

19) **[go]**$_A$=gani [na boe]$_O$
2SGS=eat ACC pig
Eat the pork!

(Hyslop 1998: 328)

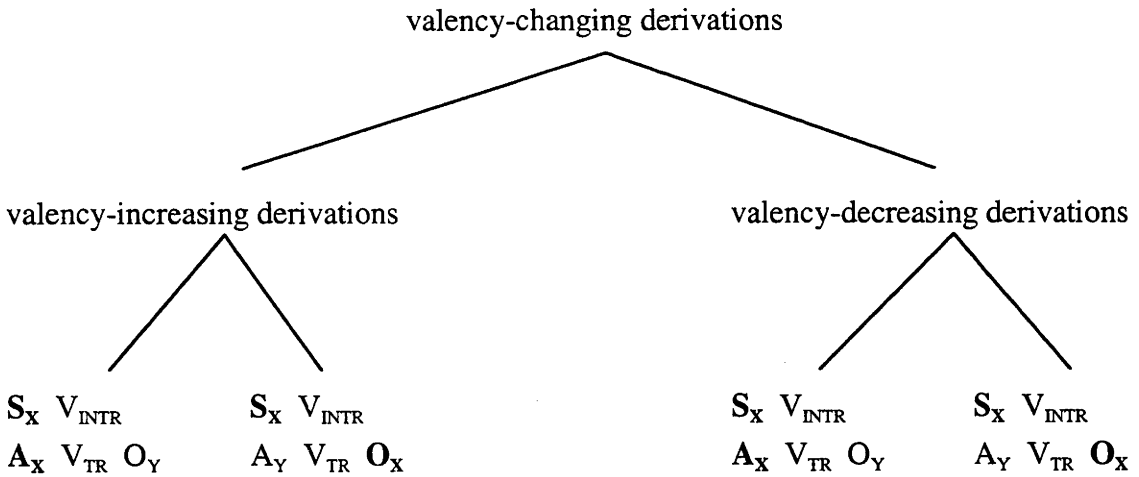
20) **[go]**$_S$=ga-gani
2SGS=REDUP-eat
Eat!

(Hyslop 1998: 328)

Figure 1.2 shows the classification of the different types of valency-changing derivations. The final nodes of each branch demonstrate the syntactic structure of the intransitive and transitive forms of a verb. The correspondence between grammatical functions in terms of semantic roles is shown by the subscript letters with each argument. Valency-increasing derivations with which the S and A arguments correspond and the introduced participant is expressed as O are called applicative derivations, and those where the S and O arguments correspond and the introduced participant is expressed as A are called causative derivations[10].

[10] The term applicative was first used with regard to Bantu languages and had the more narrow definition of a derivation that promoted an oblique argument to a core O argument. The arguments promoted have particular types of semantic roles, such as beneficiary and instrument. In this thesis the term applicative is used to refer to any valency-increasing derivation with which the introduced participant is expressed as the O argument. In some Oceanic languages the O argument of an applicativised transitive verb can also be expressed as an oblique argument with an intransitive form of the verb, but in other languages the applicative construction is the only way to express such a participant within the clause.

Figure 1.2: Types of valency-changing derivations



As shown by examples (13) to (20), in North-East Ambae there is a different valency-changing device for each of the different types of valency-changing derivations. The correlation between valency-changing devices and valency-changing derivations in North-East Ambae are shown in Table 1.1. North-East Ambae has a second valency-decreasing prefix *ta-*, and two more valency-increasing suffixes, *-gi(ni)* and *-tagi(ni)* are also included in the table.

Table 1.1: Valency-changing devices and valency-changing derivations in North-East Ambae

valency-decrease	derivational relationship	valency-increase
reduplication	S_X V_{INTR} A_X V_{TR} O_Y	*-Ci*[11]; *-gi(ni)*
ma-; ta-	S_X V_{INTR} A_Y V_{TR} O_X	*vaga-*; *-tagi(ni)*

[11] *C* here represents a lexically-determined consonant. Such consonants are known as thematic consonants and are described in Chapters 3 and 5.

As can be seen, in North-East Ambae each valency-changing device denotes a particular valency-changing derivation. In this respect North-East Ambae is unusual, and in many Oceanic languages one or more of the valency-changing devices denote more than one type of valency-changing derivation. For example, Table 1.2 shows the correlation between valency-changing devices and valency-changing derivations in Longgu. Like North-East Ambae, Longgu has a causative prefix *va'a-* and a valency-decreasing prefix *ma-*, both of which denote one type of valency-changing derivation only. However, the valency-increasing suffixes *-Ci* and *-Ca'ini* have both causative and applicative uses, and valency-decreasing reduplication also denotes the two types of derivations.

Table 1.2: Valency-changing devices and valency-changing derivations in Longgu

valency-decrease	derivational relationship	valency-increase
reduplication	$\mathbf{S_X}$ V_{INTR}	
	$\mathbf{A_X}$ V_{TR} O_Y	*-Ci; -Ca'ini*
ma-; reduplication	$\mathbf{S_X}$ V_{INTR}	
	A_Y V_{TR} $\mathbf{O_X}$	*va'a-; -Ci; -Ca'ini*

The different uses of valency-increasing devices with different verbs is the second way in which classes of verbs are established in Oceanic languages. That is, the valency-increasing suffixes in Oceanic languages have a causative use with some verbs and an applicative use with others, and two classes of verbs can be established on this basis. These two classes of verbs can also be defined in terms of the macrorole of the S argument. Verbs with which the valency-increasing suffixes have a causative derivation have an S argument with the macrorole of Undergoer, whereas verbs with which the valency-increasing suffixes have an applicative derivation have an S argument with the macrorole of Actor. Examples (21) and (22), from Bauan Fijian, show the causative use of *-Ca*, and the role of the S argument in (21) is that of Undergoer. Examples (23) and (24) show the applicative use of *-Ca* and the role of S in (23) is that of Actor.

21) a tobo **[na vuaka]**$_S$
PAST trap ART pig
The pig was trapped.

(Biggs 1974: 424)

22) [au]$_A$ a tobo-ka [**na vuaka**]$_O$
1sg PAST trap-TR ART pig
I trapped the pig.

(Biggs 1974: 425)

23) [**au**]$_S$ a lako
1sg PAST go
I went.

(Biggs 1974: 425)

24) [**au**]$_A$ a lako-va [na gaunisala babalavu]$_O$
1sg PAST go-TR ART road REDUP.long
I traversed the long road.

(Biggs 1974: 425)

1.4 The Proto Oceanic verb complex

The verb complex in Proto Oceanic was very similar to that just described for modern Oceanic languages. Proto Oceanic had pre-verbal markers of the person and number of the subject and of tense/aspect/mood, and also post-verbal markers of the person and number of the object. A partial paradigm of object enclitics is reconstructed for Proto Oceanic in Evans (1995). Proto Oceanic had object enclitics for 1sg, 2sg and 3sg, as well as 3pl, as shown in Table 1.3. O arguments of the other person and number categories would have been indicated by the independent pronouns.

Table 1.3: Proto Oceanic object enclitics

	1	2	3
singular	*=au	*=ko	*=a
plural	_	_	*=ra

As in modern languages, Proto Oceanic had a number of valency-changing devices. Table 1.4 shows the different valency-changing devices which have been reconstructed for Proto Oceanic and the ways in which they correlate with the different types of valency-changing derivations[12]. As can be seen some forms, such as the

[12] Proto Oceanic also had a reciprocal prefix **paRi-*, but this form is not discussed in the thesis.

causative prefix **pa[ka]-*, valency-decreasing **ma-* and **ta-* and valency-decreasing reduplication had only one type of derivation. Valency-increasing **-i* and **akin[i]*, on the other hand, had both causative and applicative uses.

Table 1.4: Valency-changing devices and derivations in Proto Oceanic

valency-decrease	derivational relationship	valency-increase
reduplication	S_X V_{INTR} A_X V_{TR} O_Y	**-i; *akin[i]*
**ma-; *ta-*	S_X V_{INTR} A_Y V_{TR} O_X	**pa[ka]-; *-i; *akin[i]*

Proto Oceanic had a system of verb classes based on: (i) the relationship between the intransitive and transitive form of a verb and the macrorole of the intransitive subject; and (ii) the types of valency-changing devices with which a verb could occur. The first division of verbs in Proto Oceanic was between Undergoer subject verbs and Actor subject verbs. Undergoer subject verbs were further subclassified as those which were transitivisied with the causative prefix **pa[ka]-* and those which were transitivisied with the transitive **-i* and/or the object enclitics. Both Undergoer subject verbs which were transitivised with **pa[ka]-* and ones which were transitivisied with **-i* and/or the object enclitics were subclassified into those which had an unmarked intransitive form and those which had an intransitive form with **ma-*. Actor subject verbs had transitive forms with **-i* and/or the object enclitics, but were further subclassified into those which had an unmarked intransitive form and those which had a reduplicated intransitive form. It can also be shown that these morphological classes of verbs tended to correlate with semantic types of verbs.

1.5 CONVENTIONS AND SUMMARY OF THIS STUDY

1.5.1 DATA

The sources of data used for languages referred to in the thesis are listed in Appendix A. Examples are presented in the thesis as they were in the sources. Thus, examples from different languages follow different orthographic conventions, but where the phonetic and/or phonemic details are relevant to the discussion any unusual orthographic conventions are described. The glossing of examples also follows that of the source and any abbreviations are given in the list of abbreviations on pages XXIII-XXVI.

1.5.2 RECONSTRUCTIONS

The morphosyntactic reconstructions presented in the thesis are sometimes supported by lexical reconstructions. Within the thesis such lexical reconstructions are generally given without the supporting data. Appendix B gives the lexical reconstructions together with their supporting data, and also the sources of data used for putting together the cognate sets.

The conventions used in presenting reconstructions follow those of Ross, Pawley and Osmond (1998: 13-14), and include:

(x)	it cannot be determined whether *x* was present
(x,y)	*x* or *y* was present
[x]	the item is reconstructable in two forms, one with *x* and one without *x*
[x,y]	the item is reconstructable in two forms, one with *x* and one with *y*
x-y	*x* and *y* are separate morphemes
x-	*x* is a stem which takes a suffix or enlictic, or *x* is a prefix
-x	*x* is suffix
=x	*x* is an enclitic
<x>	*x* is an infix

The reconstructed paradigms of consonants and vowels for Proto Oceanic followed in the thesis are:

*p^w	*p	*t	*c	*k	*q
*b^w	*b	*d	*j	*g	
		*s			
*m^w	*m	*n	*$\tilde{n}$	*$ŋ$	
		*r			*R
		*dr			
		*l			
*w			*y		
	*i		*u		
	*e		*o		
		*a			

Generally the phonetic realisations reconstructed for these proto-phonemes are the ones expected from the symbols used. The voiced obstruents *b^w, *b, *d, *j and *g were probably prenasalised, as are their reflexes in many modern Oceanic languages. The 'labio-velars' *p^w, *b^w and *m^w may have been pronounced as velarised labial stops, as the reflexes in some modern languages are, but there is also evidence from modern languages that they may have been double articulations, thus [k͡p], [g͡b] and [ŋ͡m]. The phoneme *t may have been a dental stop, whereas the other apicals are likely to have been alveolars. The apical *dr was a prenasalised alveolar trill. The consonants *c and *j were probably voiceless and voiced prenasalised palatal stops. The phoneme *q was probably a glottal stop, but it may have been uvular like some of its reflexes. The rhotics *r and *R were trills, alveolar and uvular, respectively. Ross (1998) gives an overview of Proto Oceanic phonology and a more detailed description is presented in Ross (1988). The reconstructed paradigms and orthography followed here is essentially that of Ross (1988), with the addition of *p^w.

Tables of sound correspondences are not presented in the thesis, as sound correspondences amongst Oceanic languages established in other works have been followed. Pawley (1972) provides sound correspondences for a large sample of Central/Eastern Oceanic languages, and for groups within Central/Eastern Oceanic there is: Levy (1979, 1980), Tryon and Hackman (1983), Lichtenberk (1988) and Ross (1989) for Southeast Solomonic; Tryon (1976) and Lynch (2001) for languages of Vanuatu; Geraghty (1989) and Ozanne-Rivierre (1992) for New Caledonian languages; Geraghty (1986) for Central Pacific languages; Biggs (1965, 1971) for Rotuman and Polynesian languages; and Jackson (1986) for Micronesian languages. The sound correspondences for the Admiralties languages, the St. Matthias languages and the Western Oceanic languages are established in Ross (1988) and for Yapese in Ross (1996).

1.5.3 OUTLINE OF THIS STUDY

As mentioned this study examines the system of verb classes and valency-changing derivations in Proto Oceanic. Chapter 2 examines the issue of verb classes, and proposes a reconstruction of the Proto Oceanic system. Each of the following chapters looks at a particular valency-changing device. Chapter 3 looks at the Proto Oceanic transitive suffix **-i*. Chapters 4 and 5 are concerned with Proto Oceanic **akin[i]*; Chapter 4 with the uses and distributions of the modern reflexes and cognates, and Chapter 5 with the reconstruction of the Proto Oceanic situation. Chapter 6 looks at the Proto Oceanic causative prefix **pa[ka]-*, and Chapter 7 looks at the valency-decreasing morphemes **ma-* and **ta-*. All of the chapters examine and summarise the previous work on each topic and then build on this work to provide a more detailed description of how Proto Oceanic behaved.

2 *verb classes*

2.1 INTRODUCTION

Aspects of the syntactic behaviour of verbs appear to be determined by their membership of semantically coherent verb classes (Levin & Rappaport Hovav 1996: 489). In Oceanic languages clear morphosyntactic classes of verbs can be established, often based on the different valency-changing devices with which they occur and the relationship between the grammatical functions of the intransitive and transitive forms of a verb. As expected, particular semantic types of verbs tend to correlate with these morphosyntactic classes.

The consistency of morphosyntactically-defined classes of verbs across Oceanic languages provides strong evidence for the reconstruction of similar classes for Proto Oceanic. It is proposed here that different classes of Proto Oceanic verb roots can be reconstructed on the basis of their behaviour as both intransitive and transitive verbs[1]. Proto Oceanic had two major classes of verb; Undergoer subject verbs and Actor subject verbs, defined on the basis of the macrorole of the intransitive subject and the relationship between the intransitive and transitive forms of a verb. Undergoer subject verbs may be further classified as U-process verbs and U-stative verbs on the basis of the valency-increasing derivations with which they occurred. In Proto Oceanic most verbs had unmarked intransitive forms and marked transitive forms, and it is on the basis of these forms and their reflexes that the verb classes are established. However, Proto Oceanic also had valency-decreasing derivations, and the way in which verbs that had derived intransitive forms fitted into the verb classes system is also discussed.

It is also proposed here that different semantic groups of verbs tended to correlate with each of these morphosyntactic classes. Undergoer subject verbs were

[1] The majority of verbs in Proto Oceanic appear to have had both intransitive and transitive forms and thus morphosyntactic classes of verb roots can be established using their occurrence as part of a paradigm of intransitive and transitive forms. Proto Oceanic verb roots that occurred as only intransitive or only transitive would have been outside of the classification presented here.

forms that typically denoted states and processes and Actor subject verbs were forms that typically denoted actions. Verbs that denoted process-actions were divided between the two classes.

Section 2.2 describes the criteria relevant for determining verb classes in Oceanic languages, and also establishes the terminology used in this thesis. These same criteria will be seen to be relevant in the reconstruction of Proto Oceanic verb classes. Section 2.3 examines the issue of verb classes in Proto Oceanic. First, a brief description of previous studies of verb classes in Proto Oceanic is given and the various questions and issues seen to be not fully resolved are then considered. In section 2.4 a summary is given of the system of Proto Oceanic verb classes on the basis of the research and subsequent proposals presented in the chapter.

2.2 Verb classes in modern Oceanic languages

In many descriptions of modern Oceanic languages verbs are subclassified on the basis of the types of valency-changing derivations with which they occur, and the way in which the syntactic and semantic structure of underived verbs is altered. What follows is a general overview of three features by which verb classes are commonly established: valency-changing derivations; the stative versus dynamic distinction; and the role of the intransitive subject. The languages which have been taken as representative for this description are Manam (NNG), Mekeo (PT), Hoava (MM), Longgu and Kwaio (SES), North-East Ambae (SO) and Boumaa Fijian[2]. The finer details of verb classes in particular languages will be described, where relevant, in the sections dealing with the reconstruction of verb classes for Proto Oceanic.

2.2.1 Valency-changing devices

Perhaps the most distinctive way in which verbs in Oceanic languages are subclassified is on the basis of the types of valency-changing devices with which they can occur. Oceanic languages often have several morphological means by which the valency of different verbs can be altered, and thus morphological classes of verbs can be established on the basis of these different forms.

[2] The verb classes in these languages appear representative of those in Oceanic languages in general in that other languages researched showed similar systems. Also these languages cover all of the major subgroups within Oceanic and detailed descriptions of their systems of verb classes are available.

In North-East Ambae verbs which have unmarked intransitive forms can be divided into the following five groups on the basis of their transitive forms, or lack thereof (Hyslop 1998: 83-87):

(i) no transitive form
(ii) transitivised with the causative prefix *vaga-*[3]
(iii) transitivised with the causative suffix *-tagi(ni)*
(iv) transitivised with the applicative suffix *-Ci*
(v) transitivised with the applicative suffix *-gi(ni)*

For example, the verbs *garu* 'to swim, bathe', *laka* 'to be noisy' and *rugu* 'to search' have transitive forms with the suffix *-Ci*, giving *garu-hi* 'to bathe, splash s.o.', *laka-si* 'to disturb s.o. (by making noise)' and *rugu-si* 'to search for sth'. The verbs *laqa* 'to make a speech', *lodo* 'to spit' and *qalo* 'to fight', on the other hand, have transitive forms with *-gi(ni)*, giving *laqa-gi(ni)* 'to make a speech about sth', *lodo-gi(ni)* 'to spit sth out' and *qalo-gi(ni)* 'to fight over/for sth'. A few verbs may take more than one type of valency-increasing derivation. For example, the form *ngara* 'to cry' has one transitive form with *-Ci*, *ngara-hi* 'to cry for s.o.', and another transitive form with *-gi(ni)*, *ngara-gi(ni)* 'to cry about sth' (Hyslop 1998: 85-86). Verbs which have unmarked transitive forms can be subclassified in a similar way. Such forms are divided into three groups on the basis of their intransitive forms, or lack thereof (Hyslop 1998: 83 & 87-89):

(i) no intransitive form[4]
(ii) detransitivised with the anti-causative prefixes *ma-* or *ta-*
(iii) a reduplicated intransitive form.

The description of verb classes in North-East Ambae given here has been simplified. It is used here to demonstrate the types of morphologically-defined verb classes which occur in Oceanic languages. However, in North-East Ambae, and other Oceanic languages, the different morphological classes interact with the other semantic and morphosyntactic criteria that define verb classes and thus, verb classes need to be considered in terms of a set of defining features.

---

[3] Some of the verbs that are characterised by a transitive form with the causative prefix actually occur with both the causative prefix and an applicative suffix. For example, the transitive form of *sala* 'be/become lost' is *vaga-sala-gi(ni)* 'to lose sth'. The same is also true of verbs classified as taking the causative prefix in other languages, and indeed in Proto Oceanic. See Sections 2.3 and 2.3.1.

[4] The transitive form of some of these verbs contain apparently relic reflexes of the applicative suffixes *-Ci* and *-gi(ni)*.

The valency-changing morphemes considered in this study are: the transitive suffix *-*i*; valency-increasing **akin[i]*; the causative prefix **pa[ka]*-; the intransitive prefixes **ma*- and **ta*-; and valency-decreasing reduplication. Of these *-*i*, **pa[ka]*-, **ma*- and reduplication are diagnostic of the morphological verb classes proposed to have been present in Proto Oceanic. A brief summary of the way in which **ta*- interacted with the verb classes is given in section 2.3.6.3. Valency-increasing **akin[i]* is mentioned briefly in section 2.4, but detailed discussion is left for chapters 4 and 5.

2.2.2 THE STATIVE VERSUS DYNAMIC DISTINCTION

Often the first distinction made between classes of verbs in descriptions of Oceanic languages is between stative and dynamic (or active) verbs. The criteria used to define stative and dynamic verbs differ from analysis to analysis, and often reflect morphosyntactic distinctions which primarily correlate with the stative-dynamic one.

This thesis will follow the characterisation of the stative-dynamic distinction presented in Chafe (1970). He classifies situations as either states or non-states (events), and non-states are further classified as process, action or process-action situations. The sentences under (1) below denote states, where the verb denotes that some referent is in a certain state or condition and that the noun or argument accompanying the verb has the role of patient. The sentences under (2) denote processes, that is, the verb denotes that some referent has changed its state or condition and the argument of the verb again has the role of patient. The verbs under (3) are action verbs and denote activities which someone, an agent, performs. The forms in (4) Chafe (1970: 100) calls process-action forms, as they denote both a process involving a change in the condition of a patient and an action performed by an agent.

<u>States</u>

1) a. The wood is dry.
   b. The rope is tight.
   c. The dish is broken.
   d. The elephant is dead.

Processes

2) a. The wood dried.
   b. The rope tightened.
   c. The dish broke.
   d. The elephant died.

Actions

3) a. Michael ran.
   b. The men laughed.
   c. Harriet sang.
   d. The tiger pounced.

Process-actions

4) a. Michael dried the wood.
   b. The men tightened the rope.
   c. Harriet broke the dish.
   d. The tiger killed the elephant.

(Chafe 1970: 98)

As can be seen from the examples of the different types of states and events, the same verb forms can occur with state, process or process-action meanings. Croft (1990) describes this in terms of an idealised model of event structure, involving the sequence CAUSE-BECOME-STATE, where different types of situations involve different parts of the causal chain. Croft (1990: 55) proposes that any situation can be conceptualised in terms of the three event views: causative, inchoative or stative. That is, verbs can occur in causative, inchoative or stative constructions and thus be interpreted as denoting a causative, inchoative or stative situation. The three sentences under (5) demonstrate this for the English verb 'open'. Croft's (1990) causative, inchoative and stative constructions correspond to Chafe's (1970) process-action, process and state constructions[5].

[5] This thesis will follow the terminology of Chafe (1970) to avoid confusion regarding the term 'causative', which is also used to refer to a particular type of transitivising derivation.

		Croft 1990	Chafe 1970
5)	I opened the door.	CAUSATIVE	PROCESS-ACTION
	The door opened.	INCHOATIVE	PROCESS
	The door is open.	STATIVE	STATE

While any situation can be conceptualised as any of the three event views, with different types of situations different parts of the causal chain will be more salient than others, and a particular situation will be more likely to be conceptualised as one or other type of view. This means that different types of verbs, denoting different types of situations, will also be more likely to involve one or other of the different views, and thus particular verbs will prototypically be expressed as particular views. Croft (1990: 60) also suggests that this is reflected in markedness patterns, whereby a prototypical association between view type and verb type will be grammatically unmarked, whereas a non-prototypical association between view type and verb type will be grammatically marked. For example, with inherent, or generally inherent, properties such as colour and size the most salient part of the causal chain is the state part, and thus verbs (or adjectives) denoting such properties will occur unmarked in stative constructions, but will be marked to give process (inchoative) or process-action (causative) interpretations. This is the case with English 'red' which denotes a state in its unmarked form, but is grammatically marked to denote a process, 'redden', or a process-action, 'make red'.

In Oceanic languages the classification of verbs into such semantic types is mostly described as a dichotomy between stative and dynamic (active) verbs. The class labelled 'stative' often includes forms which denote not only a state, but also a process. Thus in Manam, Kwaio, North-East Ambae, Paamese (SO) and Tinrin (SO) the class of 'stative' verbs is described as denoting states or processes (Lichtenberk 1983: 219, Keesing n.d.: 34, Hyslop 1998: 83, Crowley 1982: 71 and Osumi 1995: 77). Hyslop (1998: 83) gives this class in North-East Ambae the more accurate label of stative-inchoative to indicate that such verbs may denote either a state or a process in their unmarked forms. For example, the form *sala* can denote either a state, 'be lost', or a process, 'become lost', and a process-action meaning, 'to lose sth', is derived with the causative prefix *vaga-*. The other way in which classes of 'stative' verbs are defined in the descriptions of Oceanic languages is in terms of the role of the intransitive subject. Thus in Manam and Hoava this class of verbs is defined as taking a patient as subject, in contrast with dynamic verbs which have an agent as subject (Lichtenberk 1983: 219-222, Davis 1997: Section 5.2). A problem with the stative-dynamic distinction as it is defined in the descriptions of many Oceanic languages is that the defining features involve characteristics of the verbs other than the semantic ones. Thus where state and

process verbs behave in the same way morphosyntactically all such forms will be labelled 'stative'. This thesis attempts to retain Chafe's (1970) labels of state, process, action and process-action for the semantic characteristics of verbs.

2.2.3 THE ROLE OF THE INTRANSITIVE SUBJECT

The third important distinction made in the classification of verbs in Oceanic languages involves the role of the intransitive subject and the relationship between the intransitive and transitive forms of a verb. Verbs in Oceanic languages can be divided into two groups on the basis of the macrorole of the S argument of their intransitive form. Table 2.1 gives examples of the two different types of verbs in several languages. The difference between the two groups is that the verbs under (i) take as their S argument participants with a macrorole of Actor, whereas the verbs under (ii) takes as their S argument participants with a macrorole of Undergoer.

Table 2.1: Two classes of verbs in Oceanic languages

(i) Actor subject verbs		(ii) Undergoer subject verbs	
Manam			
loŋo	*hear*	ado	*be straight*
nodo	*feel sad, troubled*	piti?awa	*be shiny*
zabu	*reach out, grope*	mambu	*be finished*
wanana	*wait*	uya	*be good, well*
Hoava			
soko	*to chop*	tuke	*be thrown away*
kikiu	*to call*	tukele	*be open*
haqala	*run*	vaqaru	*be new*
gona	*throw*	raqo	*be blocked*

Table 2.1 (cont)

(i) Actor subject verbs		(ii) Undergoer subject verbs	
Kwaio			
ali	*carry*	ba'ita	*be big*
damu	*chew*	foga	*be split, cracked*
doŋa	*follow*	lili	*turn around*
figu	*gather together*	sigi	*be finished*
North-East Ambae			
dige	*walk*	bulu	*join*
garu	*swim, bathe*	dule	*hang*
laka	*be noisy*	rada	*be awake, awaken*
mana	*laugh*	rangai	*fry*
Boumaa Fijian			
bera	*be late*	basu	*be torn down*
cabe	*go up, climb*	cori	*be tied, tethered*
maarau	*be happy*	qawa	*be burnt*
toro	*move, approach*	sele	*be cut, sliced*

(data from Lichtenberk 1983, Davis 1997, Keesing 1975, Hyslop 1998, Dixon 1988)

Actor and Undergoer, as used here, do not refer directly to semantic roles, but rather represent the interface between semantic roles and the morphosyntax. That is, they are a conglomeration of semantic roles into two categories, each category behaving differently in terms of morphosyntax. Some semantic roles, such as agents and patients, will be consistently treated as Actors and Undergoers, respectively, both within languages and across languages. Thus with such semantic roles there is a direct correlation between the semantics and the morphosyntax. With other semantic roles, such as experiencers, recipients, stimuluses or possessors, the way in which they are grammaticised as either Actors or Undergoers is an arbitrary choice within a language. That is, in some languages experiencers may be treated grammatically as Actors, whereas in other languages they may be treated grammatically as Undergoers. This issue will be looked at again towards the end of this section.

In this thesis verbs that take an Actor as the intransitive S will be labelled Actor subject verbs and verbs that take an Undergoer as the intransitive S will be labelled Undergoer subject verbs. This follows the way these two types of verbs are labelled in various descriptions within Oceanic (see Biggs 1974, Arms 1974, Ross 1998b and Pawley & Sayaba n.d.).

The distinction between Actor subject and Undergoer subject verbs was first mentioned in relation to an Oceanic language by Biggs (1974) and Arms (1974), who independently described the importance of it in the classification of verbs in Fijian[6]. Much of the subsequent literature on this issue has also been concerned with Fijian. However, two such classes of verbs are widespread in Oceanic languages, as demonstrated by the examples given in Table 2.1.

Arms (1974: 45-46) points out that in Bauan (Standard) Fijian the different behaviour of verbs is a systematic and important distinction within the grammar, and it is not simply that the "most sensible" interpretation of the clause on the basis of the state or event denoted by the verb and the nature of the participant denoted by the S argument holds. Generally a verb is of one particular orientation type. The verb *dola* 'open' is an Undergoer subject verb, as demonstrated by (6).

6) e ā dola [na kātuba]$_S$
3u PAST open CN door
The door opened. / The door was open.

(Arms 1974: 44)

The clause in (7) with this verb is non-sensical, in so far as *na tūraga* 'the chiefs' cannot reasonably be interpreted as an agent, and therefore an Actor. That is, the single argument of a Undergoer subject verb will always be interpreted as having the role of Undergoer within the clause, and even if the participant denoted by the argument means that a more "sensical" interpretation would be that of Actor, the clause will not be interpreted as comprising an Actor subject verb.

[6] Biggs (1974) also discusses this distinction with respect to Polynesian languages, and in particular East Futunan.

7) ? era ā dola [na tūraga]$_S$
? 3p PAST open CN chief
? The chiefs opened.

(Arms 1974: 45)

There are, however, a few verbs, like *talo* 'to ladle', which can have both interpretations. As shown in (8) and (9), this verb can have behave as both an Actor subject verb and an Undergoer subject verb, determined by the semantic characteristics of the subject participant (Arms 1974: 45).

8) e sā talo oti **[ko Seru]**$_S$
3u now ladle finish PN S.
Seru has already served.

(Arms 1974: 45)

9) e sā talo oti **[na yaqona]**$_S$
3u now ladle finish CN kava
The kava has already been served.

(Arms 1974: 45)

Arms (1974: 46-47) notes that different semantic types of verbs tend to fall into each class, but states that a larger survey of verb forms is needed. Dixon (1988: 204-214) in his description of Boumaa Fijian carries out a detailed study of the types of verbs that occur in each class, and concludes that there is a principled semantic basis which determines the two classes. His general conclusion is that the participant considered to be more significant to the situation denoted by the verb will be expressed as the intransitive S argument. The types of verbs, in terms of semantic domains, which are Undergoer subject and Actor subject verbs are looked at in more detail in sections 2.3.2.3 and 2.3.3.

As Biggs (1974) points out concerning Bauan Fijian, this distinction between the two types of verbs is important in the description of valency-changing derivations. These derivations have different syntactic effects depending on whether they are attached to an Undergoer subject verb or an Actor subject verb. When the Bauan Fijian transitivising suffix *-(C)a* is attached to an Actor subject verb the derived verb requires an extra argument with the macrorole of Undergoer, as demonstrated by (11), in comparison with (10). However, when *-(C)a* is attached to an Undergoer subject verb,

the extra argument is expressed as subject and has the macrorole of Actor. This can be seen when (12) and (13) are compared.

10) **[au]**$_S$ a lako
1sg PAST go
I went.

(Biggs 1974: 425)

11) **[au]**$_A$ a lako-va [na gaunisala babalavu]$_O$
1sg PAST go-TR ART road REDUP.long
I traversed the long road.

(Biggs 1974: 425)

12) a tobo [**na vuaka**]$_S$
PAST trap ART pig
The pig was trapped.

(Biggs 1974: 424)

13) [au]$_A$ a tobo-ka [**na vuaka**]$_O$
1sg PAST trap-TR ART pig
I trapped the pig.

(Biggs 1974: 425)

As can be seen from these examples, the suffix *-(C)a* has two valency-increasing functions in Bauan Fijian. It can be applicative, adding an O argument or causative, adding an A argument. The type of derivation is determined by whether the verb to which it is attached is an Actor subject verb or an Undergoer subject verb, respectively.

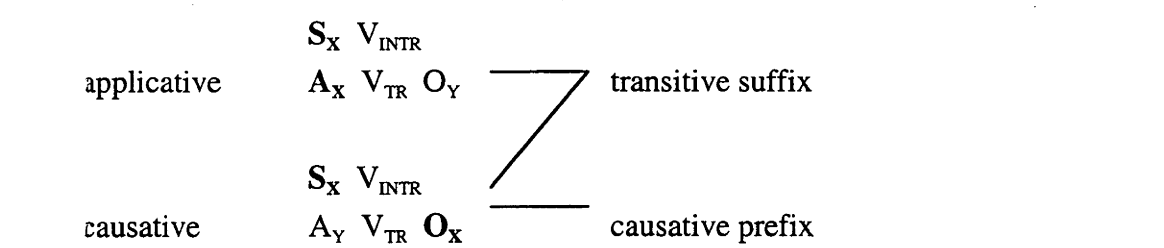
The same is true for reflexes of the transitive suffix **-i* in many other Oceanic languages[7]. That is, they perform two different derivational processes dependent on the verb with which they occur. With Actor subject verbs reflexes of **-i* allow an O argument to be included in the clause and the intransitive S and transitive A arguments correspond. With Undergoer subject verbs the argument introduced with reflexes of **-i* is expressed as transitive A, and the intransitive S and the transitive O arguments correspond.

[7] Bauan Fijian *-(C)a* derives historically from the contraction of the Proto Oceanic suffix **-i* and 3sg object enclitic **=a*. The variable consonant, *C*, represents the presence of a thematic consonant.

It is not, however, all valency-changing morphemes which perform the two types of processes. Only reflexes of the transitive suffix **-i* and of **akin[i]* do. Reflexes of the causative prefix **pa[ka]-* always have the causative-type derivation. Valency-decreasing morphology in Oceanic languages also seems generally to perform only one type of derivation between the transitive and intransitive forms. Reduplication derives intransitive verbs where the transitive A and intransitive S correspond and reflexes of the prefixes **ma-* and **ta-* derive intransitive verbs where the transitive O and intransitive S arguments correspond (see sections 2.3.6.1, 2.3.6.2 and 2.3.6.3).

Looking at just reflexes of **-i* and **pa[ka]-*, there are the two types of derivational processes, causative and applicative, but there is not a one-to-one correspondence between these functions and the two morphemes. As shown by the diagram below, the derivation in which the S and A arguments correspond is marked uniquely by the transitive suffix, whereas the derivation whereby the S and O arguments correspond is sometimes marked by the transitive suffix and other times by the causative prefix[8].

Figure 2.1: Correspondence between valency-increasing derivations and devices



The Bauan Fijian examples (10) to (13) also demonstrate the different relationship between the intransitive and transitive forms of Actor subject and Undergoer subject verbs in terms of their grammatical functions. This is also shown by examples (14) to (17) from Hoava. With Actor subject verbs, like Bauan Fijian *lako* 'to

[8] It is not just in Oceanic languages that transitivising morphemes with both causative and applicative functions are found. Austin (1997) describes several Australian Aboriginal languages in which a single derivational suffix has both of these functions, dependent on the verb to which it is attached, and Comrie (1989: 183) states that in many languages such a situation occurs, giving examples from Wolof, a Niger-Congo language.

go' and Hoava *soko* 'to chop', the intransitive S argument and the transitive A argument correspond in the sense that both denote the same set of participants. Thus in (14) the intransitive S argument of *soko* 'to chop' is an agent and in (15) with the transitive form of this verb the A argument denotes the agent.

14) soko **[sa makariva]**$_S$
chop ART:SG boy
The boy chopped.

(Davis 1997: Section 5.2.5)

15) soko-a **[sa makariva]**$_A$ [sa qato]$_O$
chop-TR:3sg ART:SG boy ART:SG tree
The boy chopped the tree.

(Davis 1997: Section 5.2.5)

With Undergoer subject verbs, like Bauan *tobo* 'be trapped' and Hoava *tuke* 'be thrown away', the intransitive S argument and the transitive O argument correspond. Thus in (16) the intransitive S argument of *tuke* 'be thrown away' is a patient and in the transitive clause in (17) the O argument expresses the patient.

16) tuke **[sa leboto]**$_S$
be.thrown.away ART:SG bushknife
The bushknife was thrown away.

(Davis 1997: Section 5.2.2)

17) tuke-a [rao]$_A$ **[sa leboto]**$_O$
thrown.away-TR:3sg PRO:1sg ART:SG bushknife
I threw the bushknife away.

(Davis 1997: Section 5.2.2)

In the first part of this section it was mentioned that particular types of semantic roles do not behave consistently as Actors or Undergoers. That is, while agents are consistently grammaticised as Actors and patients as Undergoers, other semantic roles are grammaticised differently in different languages. The way in which different semantic roles are grammaticised can be determined by the relationship between the intransitive and transitive forms of a verb and the way in which the grammatical functions correspond. For example, in Longgu the "experiencer of die" with the verb

mae 'to die, be dead' is treated as an Actor. That *mae* 'to die, be dead' is an Actor subject verb can be seen from examples (18) and (19). In the intransitive clause in (18) the experiencer is expressed as the S argument and it corresponds with the A argument of the transitive clause in (19). Thus morphosyntactically *mae* 'to die, be dead' behaves as an Actor subject verb and the experiencer of this verb is treated grammatically as an Actor.

18) **[geni]**$_S$ e mae na
woman 3sg die PERF
The woman is dead.

(Hill 1992: 64)

19) [e]$_A$ mae-si-a [malaria-i]$_O$
3sg die-TR-3sg malaria-SG
He/she died of malaria.

(Hill 1992: 66)

In Tolo (SES), on the other hand, the "experiencer of die" is treated as an Undergoer. As can be seen from examples (20) and (21), *mate* 'to die, be dead' in Tolo is an Undergoer subject verb. The experiencer or things that dies is expressed as the S argument in the intransitive clause in (20) and it corresponds to the O argument of the transitive clause in (21).

20) **[kebe]**$_S$ e mate
fire 3sg be.dead
That tree is dead.

(Crowley 1986: 28; gloss mine)

21) [nau]$_A$ mate-a **[kebe]**$_O$ rongona sola e pungu
1sg be.dead-3sg fire because lot 3sg smoke
I put out the fire because there was a lot of smoke.

(Crowley 1986: 28; gloss mine)

Verbs of cognition, perception verbs, emotion verbs and verbs meaning 'to die, be dead' and 'to live, be alive' are all forms which behave differently across languages with

respect to the distinction between Actor subject and Undergoer subject verbs. Such verbs are looked at in sections 2.3.4 and 2.3.5[9].

Lichtenberk (1993) suggests that the correspondence between the S argument and the A or O arguments applies properly to the derivational processes rather than to the verbs themselves, as with some verbs both types of correspondences can occur. This is the case with Bauan Fijian verb *talo* 'to ladle, be ladled' which in its transitive form takes an agent expressed A and a patient as O. The intransitive uses of this verb were given examples (8) and (9), and the S argument can express an agent and correspond with the A argument, or can express a patient and correspond with the O argument. Lichtenberk (1993: 11-12) gives another such example from To'aba'ita (SES). In (22) the verb *'aru* 'fall' is used intransitively. In (23) the verb takes the transitive suffix and the intransitive S argument corresponds to the transitive A argument. However, there is also a transitive form of this verb, *'aru-* 'to make fall, drop', with which the S argument corresponds to the O argument.

22) **[dani]**$_S$ 'e 'aru
rain it fall
It rained.

(Lichtenberk 1993: 11)

23) **[dani]**$_A$ 'e 'aru-ngi-a [baeka kafara]$_O$
rain it fall-TR-it bag copra
It rained on the bag of copra.

(Lichtenberk 1993: 11)

Despite such occasional counter-examples, this thesis argues that the correspondence between the grammatical functions of the intransitive and transitive forms of a verb may be described as a feature of the verb. Generally each verb behaves in just one way and can be uniquely classified as Undergoer subject or Actor subject. Some verbs, only a small number in any language as far as I know, can behave in both ways and are thus seen to be polysemous, belonging to both classes.

[9] In this thesis the semantic roles of participants involved in situations denoted by verbs are described in general terms of agent, experiencer, stimulus and patient. In reality it may be that each verb has its own particular semantic roles. Thus a verb of hitting involves a 'hitter' and a 'hit' and a verb of seeing a 'seer' and a 'seen'. Support for this analysis comes from the fact that verbs taking so-called experiencer and stimulus roles behave in different ways grammatically within languages, as will be seen in sections 2.3.4 and 2.3.5.

This typology of intransitive verbs has been widely discussed, in particular with reference to the Unaccusativity Hypothesis, which proposes two classes of intransitive verbs that are associated with different syntactic configurations. Unaccusative verbs, which Oceanicists have long referred to as Patient or Undergoer subject verbs, are described as having a derived subject which at some underlying level of syntactic representation is a direct object. Unergative verbs, called Actor subject verbs by Oceanicists, have an underived subject, that is one that is a subject at all levels of syntactic representation. This different syntactic configuration is said to explain the other syntactic properties which differ between the two classes (Levin & Rappaport Hovav 1996; see also Perlmutter 1978).

Much has also been written about the possible semantic criteria which define the two classes. As Table 2.2 shows, the types of meanings associated with Undergoer and Actor subject verbs are similar across languages. Various, but similar, semantic features have been proposed as forming the basis of these two classes of verbs. Van Valin (1990) proposes that the primary semantic parameters of the split amongst intransitive verbs are Aktionsart (lexical aspect) and agentivity, languages differing in which actually governs the split. Dowty (1991) proposes it to be a combination of agentivity and telicity, forms that are non-agentive and telic being the most likely to be Undergoer subject ones. Kazenin (1994) proposes that the split is determined by the affectedness of the patient participant and the amount of information conveyed by the verb about the agent participant. Thus Undergoer subject verbs are typically those where the patient participant is highly affected by the state or event denoted by the verb and the agent participant is merely a causer, whereas Actor subject verbs are those that are "agent-oriented" in the sense that the meaning of the verb conveys information about the agent's physical, mental or emotional state and purposes or mode of activity. In a study of several Australian languages, Austin (1997: 175) suggests that volitionality and change of state are the important dimensions, non-volitional change of state forms being Undergoer subject verbs. The features which determine the boundary between these two classes of verbs in Oceanic are looked at in section 2.4.

Table 2.2: Undergoer and Actor subject verbs cross-linguistically

Undergoer subject verbs		Actor subject verbs	
Boumaa Fijian			
lobi	*folded*	'ana	*eat*
cula	*pierced*	lade	*jump (for/over)*
bote	*demolished, dismantled*	bose	*confer (over)*
dresu	*torn*	vuli	*to learn*
udre	*burning*	vala	*fight (with/over)*
po'i	*roll*	wili	*count, read*
Wik-Mungkan (Australian)			
ika-	*tear, split*	kee'a-	*to play, dance*
keeka-	*to fall*	peeya-	*to cry*
picha-	*to burst, break*	thengka-	*to laugh*
weenta-	*to turn, change*	uuyama-	*to tell lies*
wipa-	*to get stuck, bogged*	wampa-	*to come*
Yup'ik Eskimo			
akag-	*roll (sth)*	amllir-	*step over*
alleg-	*get torn*	anger-	*agree (with)*
egua-	*burn*	callug-	*fight (with)*
kape-	*get stabbed*	elit-	*to learn*
tallegte-	*get scratched*	qakvar-	*win*
Dulong/Rawang (Tibeto-Burman)			
gvaqē	*be broken, destroyed*	vmē	*eat*
gvyøpmē	*be crumpled*	zvtnē	*weave*
bvløpmē	*be folded*		
dvchøpmē	*be capped*		
English			
break	burn	eat	learn
destroy	wake up	read	weave
block	roll		

(data from Dixon 1988, Austin 1997: 193, Mithun 2000: 285, LaPolla 2000: 285, and Haspelmath 1993: 97)

2.3 PROTO OCEANIC VERB CLASSES

The membership of verb classes in a language is not entirely clear cut. Each class will have a core set of verbs which belong clearly to that class and not to others, but the boundaries of each class will be fuzzy with certain verbs belonging to different classes across speakers and even across different usages of the one speaker. Over time verbs may shift from one class to another and the feature or features which apparently defined the boundary of a class may change. This tendency to change makes the reconstruction of the membership of verb classes for a proto-language rather difficult. But while the membership of verb classes cannot easily be reconstructed, it is possible to reconstruct the system of classes and from this to make proposals concerning the core of each class both in terms of semantic domains and even particular lexical items. This chapter, and in particular this section, is concerned with the system of verb classes that can be reconstructed for Proto Oceanic and, subsequent to that, with the lexical membership of particular classes. This work builds on that of two previous proposals about Proto Oceanic verb classes. These are described first, before several different aspects of the reconstruction of the Proto Oceanic system of verb classes are examined.

Pawley (1973: 128-140) puts forward a classification of verbs for Proto Oceanic determined by the valency of their unmarked form and the ways in which intransitive forms could be transitivised. Table 2.3 below shows a slightly modified version of the Proto Oceanic verb classes established by Pawley (1973). The first distinction made is between stative and dynamic verbs. Stative verbs are defined as those which referred to states and dynamic verbs those which referred to events. Stative verbs are divided into two classes on the basis of the way in which a transitive form could be derived. A-class statives occurred transitively with the causative prefix **pa[ka]-*, whereas transitive forms were derived from B-class statives by the transitive suffix **-i* and/or the object enclitics. A-class statives took the causative prefix **pa[ka]-* along with the transitive suffix **-i* and/or the object enclitics. Dynamic verbs were either obligatory transitives, obligatory intransitives or optional transitives. Obligatory transitives were verbs which always occurred transitively, some requiring the transitive suffix **-i* (subclass A), and others taking the object enclitics directly (subclass B). Obligatory intransitives, on the other hand, were verbs which always occurred intransitively. Optional transitives were verbs which could be used intransitively in an unmarked form and transitively either with **-i* and the object enclitics (subclass A), or with the object enclitics directly attached to the verb stem (subclass B).

Table 2.3: Morphological classes of verbs in Proto Oceanic after Pawley (1973)

Stative	
A-CLASS	intransitive: unmarked transitive: causative prefix **pa[ka]-* plus **-i* and/or object enclitics
B-CLASS	intransitive: unmarked transitive: transitive suffix **-i* and/or object enclitics
Dynamic	
OBLIGATORY TRANSITIVES	
subclass A	no intransitive form transitive: transitive suffix **-i* and object enclitics
subclass B	no intransitive form transitive: took the object enclitics directly
OBLIGATORY INTRANSITIVE	intransitive: unmarked no transitive form
OPTIONAL TRANSITIVE	
subclass A	intransitive: unmarked transitive: transitive suffix **-i* and the object enclitics
subclass B	intransitive: unmarked transitive: took the object enclitics directly

Pawley (1973: 128-140) establishes these classes of verbs for Proto Oceanic on the basis of the types of verbs found in a number of modern Oceanic languages, giving examples of modern reflexes of the different classes in Motu (PT), Roviana (MM), Kwara'ae (SES) and Bauan Fijian. For the two classes of stative verbs and that of optional transitives many examples can be found, but in the case of obligatory transitives and obligatory intransitives it is somewhat more difficult. In fact for obligatory intransitives, Pawley (1973: 140) gives no modern Oceanic examples, and notes that such verbs are only rarely found in modern Oceanic languages and so presumably were rare in Proto Oceanic. He also notes that the modern reflexes of a single Proto Oceanic verb are not necessarily in the same verb class in different modern

Oceanic languages or may occur in more than one verb class in a single language. For example, the Proto Oceanic verb **mate* 'die, be dead' is reflected in Roviana as *mate* 'dead', an A-class stative verb with a transitive form derived by the causative prefix, *va-mate-a* 'kill s.o.'. The Kwara'ae reflex, *mae* 'be dead, die', appears in two verb classes. As in Roviana, this verb can behave as an A-class stative verb with a transitive form *fa'a-mae-* 'extinguish sth, cause sth to die' derived with the causative prefix. But in Kwara'ae this stem can also behave as an optional transitive verb and be transitivised by the transitive suffix as *mae-li-* 'die of sth'.

Ross (1998b: 21-23) reconstructs three classes of intransitive verbs for Proto Oceanic: A verbs; U verbs and U-stative verbs. These classes correspond to Pawley's (1973) optional transitives, B-class statives and A-class statives respectively. Table 2.4 tabulates the differences between these three types of verbs in terms of semantics and morphology. The labels of the three classes refer to the macrorole of the intransitive subject. A verbs have Actor subjects and U verbs and U-stative verbs have Undergoer subjects. As can be seen it is only on the basis of semantics that all three classes were distinguished from each other. A verbs were inherently dynamic, U-stative verbs were inherently stative and U verbs could have either a stative or a dynamic interpretation. As Ross (1998b: 22) notes, this difference between U-stative and U verbs is not a strict one, as in some modern Oceanic languages a dynamic (process) interpretation of a U-stative verb can be forced with appropriate aspect marking. Another semantic difference between Fijian U verbs and U-stative verbs noted by Ross (1998b: 22) is that U verbs imply some unmentioned agent or instrument, whereas U-stative verbs do not. In terms of transitivising derivations, A verbs and U verbs could both occur with either the causative prefix **pa[ka]-* or the transitive suffix **-i* and/or the object enclitics. U-statives, on the other hand, had only one transitive form and that was with the causative prefix **pa[ka]-*. Ross' (1998b) proposal differs from Pawley's in holding that Undergoer subject verbs which took **-i* and/or the object enclitics also took **pa[ka]-*. This accounts for modern reflexes of Undergoer subject verbs, like Kwara'ae *mae* 'be dead, die', which have two such transitive forms.

Table 2.4: Classes of Proto Oceanic intransitive verbs after Ross (1998b)

	stative or dynamic	intransitive subject	*-*i* and/or object enclitics	**pa[ka]-*
A verbs	dynamic	A	yes	yes
U verbs	neither	U	yes	yes
U-stative verbs	stative	U	no	yes

The reconstruction of these three classes of intransitive verbs is supported by many modern Oceanic languages, but it is difficult to determine to which class particular reconstructed verbs belong. Ross (1998b: 22-23) notes three reasons for this. As mentioned by Pawley (1973), the modern reflexes of a form often belong to different classes in modern languages, and in some modern languages verbs may belong to more than one class. Also there are languages which have lost the U-stative and/or the U verb class altogether, replacing U-statives and some U verbs by adjectives or adjectival nouns (Ross 1998a) and transferring other U verbs to the A verb class.

There remain a number of questions and issues concerning verb classes in Proto Oceanic. The aspects of verb classes to be considered here are:

(i) Pawley (1973) notes that there were two classes of obligatory transitives; those that took the transitive suffix *-*i* followed by the object enclitics, and those that took the object enclitics directly. These two classes of verb actually appear to have been present with the transitive forms of all verbs. That is, with the transitive forms of optional transitives and stative verbs some took the transitive suffix followed by the object enclitics and others took the object enclitics directly. Thus the morphological structures of transitive verbs in Proto Oceanic were:

*V = OBJ	*V- i = OBJ
*pa[ka] - V = OBJ	*pa[ka] - V - i = OBJ

However, exactly what determined which verbs took *-*i* and which took the object enclitics directly remains to be considered.

(ii) A major difference between the proposals of Pawley (1973) and Ross (1998b) concerns the two classes of Undergoer subject verbs. There is agreement that one group

of such forms were transitivised with the causative prefix **pa[ka]-*, but what about the forms which were transitivised with **-i* and/or object enclitics? Did they also have forms transitivised with **pa[ka]-*? And if so what was the difference between the two transitive forms?[10]

(iii) Ross' (1998b) account is a brief summary of the apparent Proto Oceanic system, and there remains the question of how strong is the evidence for the semantic distinction between U verbs and U-stative verbs. Also, more specifically, which types of verbs, in terms of semantic types, were likely to have been in each class?

(iv) Actor subject verbs were generally those verbs which had an agent participant as the intransitive subject. What will be considered here is the semantic types of verbs which were likely to have been Actor subject forms in Proto Oceanic.

(v) Verbs which take experiencer and stimulus participants, such as verbs of cognition, perception and emotion, are classified as Actor subject verbs in some languages and as Undergoer subject verbs in others, and how such verbs were classified in Proto Oceanic needs to be considered.

(vi) Reflexes of the Proto Oceanic verbs **mate* 'die, be dead' and **maqurip* 'live, be alive' also occur as Undergoer subject and Actor subject verbs in modern languages, and their classification in Proto Oceanic also needs to be considered.

(vii) So far the classifications of verbs have been concerned primarily with valency-increasing devices, but there is also the question of valency-decreasing devices. Do valency-decreasing reduplication and the valency-decreasing prefixes **ma-* and **ta-* fit into the classification of verbs based on valency-increasing devices or do they suggest a different classification?

2.3.1 THE DISTRIBUTION OF **-I*

In many Oceanic languages two types of verbs can be established according to whether or not they take a transitive suffix *-i* before the object suffixes. The Longgu verbs *bere* 'see' and *wa'i* 'hit' represent these two types.

24) Tolo e bere-**ngi-a** haka-i
T. 3sg see-**TR-3sg** ship-SG
Tolo saw the ship.

(Hill 1992: 55)

[10] Some verbs classified as taking the causative prefix in modern languages have the structure of causative prefix-verb-transitive suffix. Such a structure was also present in Proto Oceanic, where the presence of the transitive suffix was determined by the phonological shape of the verb.

25) Selina e wa'i-**a** Tangisia
S. 3sg hit-**3sg** T.
Selina hit Tangisia.

(Hill 1992: 51)

Pawley (1973) reconstructs these two types of verbs for Proto Oceanic, but what determined their membership? Chapter 3 looks in detail at Proto Oceanic **-i* and concludes that its distribution was phonologically determined. Consonant-final and **a*-final verb stems took **-i*, while other vowel-final verb stems took the object enclitics directly.

2.3.2 UNDERGOER SUBJECT VERBS

Could Undergoer subject verbs that were transitivised with **-i* and/or the object enclitics also take the causative prefix **pa[ka]-*, and if so what was the difference between the two transitive forms? And which semantic types of verbs belonged to each of the morphological classes of Undergoer subject verbs?

2.3.2.1 THE TWO MORPHOLOGICAL CLASSES OF UNDERGOER SUBJECT VERBS

Keesing (n.d.) presents data from several Southeast Solomonic languages which raise questions about the discreteness of the two classes of Undergoer subject verbs proposed by Pawley (1973) for Proto Oceanic. In Kwaio, and several other Southeast Solomonic languages, there is a small group of Undergoer subject verbs which can take either the causative prefix (reflecting **pa[ka]-*) or the transitive suffix (reflecting **-i*) and/or the object suffixes. Table 2.5 gives some of the Kwaio and Kwara'ae forms presented by Keesing (n.d.) which behave in this way. These forms can be divided into two groups. With verbs in group (i) the causative prefix and the transitive suffix both derive transitive verbs in which the S of the intransitive form corresponds to the O of the transitive form. With verbs in group (ii) the causative prefix and the transitive suffix have different functions. Here the causative prefix derives transitive verbs with which the intransitive S corresponds to the transitive O (as above), but the transitive suffix derives transitive verbs in which the intransitive S corresponds to the transitive A.

The verbs listed under (ii) behave as Actor subject verbs. They typically take experiencer and stimulus participants, and include emotion verbs and verbs meaning

'die, be dead' and 'live, be alive'. These two types of verbs are discussed in sections 2.3.4.3 and 2.3.5, respectively. It is group (i) verbs which are clearly Undergoer subject verbs, and thus relevant to the present discussion.

Table 2.5: Undergoer subject verbs with two transitive forms in Kwaio and Kwara'ae

intransitive		transitive	
Kwaio			
group (i)			
abu	*be off limits*	fa'a-abu-	*forbid, sacralise sth*
		abu-nge'eni-	*observe the sacredness of*
bono	*be shut*	fa'a-bono-	*shut sth*
		bono-si-	*shut sth*
'ago'ago	*be hot*	faa-'ago'ago-	*heat sth*
		'ago-fi-	*heat sth*
fou	*be public, be disclosed*	fa'a-fou-	*disclose sth*
		fou-le'eni-	*disclose sth*
group (ii)			
ma'u	*be afraid*	fa'a-ma'u-	*frighten s.o./sth*
		ma'u-ni-	*fear sth*
moori	*be alive*	fa'a-moori-	*revive, cure s.o.*
		moori-si-	*survive death because of*
mae	*to die, be dead*	fa'a-mae-	*kill s.o./sth, extinguish sth*
		mae-li-	*to die from*
Kwara'ae			
group (i)			
'ako'ako	*be hot*	fa'a-'ako'ako-	*heat sth*
		'ako-fi-	*heat sth*
fu	*be disclosed, public*	fa'a-fuu-	*disclose sth*
		fu-la-nga'ini-	*disclose sth*
abu	*be sacred, off limits*	fa'a-abu-	*sanctify, revere sth*
		abu-	*sanctify sth*

Table 2.5 (cont)

intransitive		transitive	
group (ii)			
ma'u	*be afraid*	fa'a-ma'u-	*frighten (him)*
		ma'u-ngi-	*fear sth*
mae	*be dead*	fa'a-mae-	*extinguish sth, cause to die*
		mae-li-	*to die of sth*

(data from Keesing n.d.: 5-7 & 10-11)

But is it valid to reconstruct for Proto Oceanic that Undergoer subject verbs which could take **-i* and/or the object enclitics could also take **pa[ka]-*? As Keesing (n.d.) points out, in Southeast Solomonic languages it is only a small number of Undergoer subject verbs which have the two transitive forms.

A survey of Undergoer subject verbs and their transitive derivations in the Kwaio dictionary (Keesing 1975) actually suggests three morphological classes of Undergoer subject verbs: (a) those which take the causative prefix *fa'a-*; (b) those which take the transitive suffix *-Ci* and/or the object suffixes; and (c) those which have two transitive forms, one with the causative prefix *fa'a-* and the other with the transitive suffix *-Ci* and/or the object suffixes[11].

Table 2.6 gives a selection of the Undergoer subject verbs in Kwaio and the morphological classes to which they belong. By far the largest group of Undergoer subject verbs in Kwaio are those which are transitivised with the transitive suffix *-Ci* and/or the object suffixes. Just over half of the sample, 50 of the 91 verbs, behave in this way. The second largest group, including 23 of the 91 verbs, is those transitivised with the causative prefix *fa'a-*, and only 18 verbs have two transitive forms. So of the

[11] Here and elsewhere in the chapter I have based conclusions about morphological classes of verbs on dictionary searches. A problem with this method is that inferences about the syntactic structure of verbs are made on the basis of dictionary meanings rather than on a grammatical description. In most cases it is clear from the meanings given what the role of the subject argument would be for the verb stem and its deriviatives, and from this the relationship between the intransitive and transitive forms of a verb can be determined. Verbs with meanings for which it is unclear what the role of the subject argument would be are not counted. Another potential problem is that derivational patterns that are regular and commonly occurring may not be listed in a dictionary. However, the dictionaries used here do tend to list a verb stem with its derivatives. This makes dictionaries a very useful source of data, as historically relevant patterns which are no longer productive in a language and thus not necessarily described in the grammar are revealed. A dictionary search also reveals the range of a derivational pattern. Examples given in a grammatical description are often those which most clearly demonstrate the major function of the derivation, however, a dictionary search will sometimes reveal wider uses of the morpheme.

Undergoer subject verbs which can be transitivised with the transitive suffix and/or the object suffixes, it is only a small number (18 out of 68) which can also be transitivised with *fa'a-*.

Table 2.6: Undergoer subject verbs in Kwaio

intransitive		transitive	
(a) transitivised with *fa'a-*			
ba'ita	*be big*	fa'a-ba'ita-	*enlarge sth*
dole	*be straight*	fa'a-dole-	*straighten sth out*
fii	*be suffer, be sick*	fa'a-fii-	*cause sth to be sick*
foŋu	*be full*	fa'a-foŋu-	*fill sth up*
laŋa	*be dry*	fa'a-laŋa-	*dry sth*
nugu	*be wrinkled, slack*	fa'a-nugu-	*slacken, loosen sth*
sui	*be finished, used up*	fa'a-sui-	*finish, complete sth*
(b) transitivised with *-Ci* and/or object suffixes			
boko	*be blocked, shut*	boko-li-	*block, close sth*
eta	*be begin, originate*	eta-	*begin, start sth*
fenu	*be detach, come loose*	fenu-	*detach, pull sth apart*
gege	*be tilted, sloping*	gege-	*tilt, turn sth*
kodo	*be broken off, broken*	kodo-	*break sth off*
ko'osu	*be short*	ko'osu-	*shorten sth*
ledu	*be turned inside out*	ledu-	*turn sth inside out*
lusu	*be burned, charred*	lusu-	*burn sth*
malofi	*be quiet, peaceful*	malofi-	*pacify, be gentle with*
nula	*be burn, be cooked*	nula-fi-	*burn, cook sth*
(c) take both *fa'a-* and *-Ci* and/or object suffixes			
baka	*be empty, extinguished*	baka-	*dry, empty sth*
	be dry	fa'a-baka-	*extinguish sth*
bono	*be closed, shut*	bono-si-	*shut sth*
		fa'a-bono-	*shut sth*
lado	*be united, join*	lado-	*join sth*
		fa'a-lado-	*join, assemble sth*
muda	*be all finished,*	muda-	*finish sth*
	be completely used up	fa'a-muda-	*finish sth*

(data from Keesing 1975)

Surveys of three other Oceanic languages show the same three morphological classes of Undergoer subject verbs.

Table 2.7 gives examples of Undergoer subject verbs from each of these three morphological classes in Woleaian. The largest class in Woleaian, comprising well over half the forms (with 190 of the 256 verbs) is transitivised with the causative prefix *ga-*. The second largest class (with 63 of the 256 verbs) is transitivised with the transitive endings and/or the object suffixes. Only 3 verbs were found to have both types of transitive forms.

Table 2.7: Undergoer subject verbs in Woleaian

intransitive		transitive	
(a) transitivised by *ga-*			
bbaariga	*be hurt*	ge-bbaariga-	*cause s.o. to be hurt*
beshi	*be hot*	ga-beshi	*heat sth*
chara	*be taut, straight*	ga-chera	*make sth straight*
cheiu	*be carried on the back*	ga-cheiu-	*carry s.o. on the back*
kabu	*be dull, not sharp*	ge-kabu	*make sth dull*
maarissi	*be smooth*	ge-maarissi-	*make sth smooth*
maliuwa	*be loose*	ge-maliuwa	*make sth loose*
maripi	*break, be broken*	ge-maripi	*break sth*
rangeranga	*be yellow*	ge-rangeranga	*make sth yellow*
shappa	*be capsized*	ga-shepa	*capsize sth*
taroperope	*be destroyed*	ge-taroperope	*destroy sth*
(b) transitivised with a transitive ending and/or object suffixes			
chengagi	*hang*	shengagi-li-	*hang sth up*
fagola	*grow, be raised*	fagola-	*care for, raise sth*
fatelaga	*be built*	fatelaga-	*build, construct sth*
gulu	*be extinguished, destroyed*	gulu-	*destroy, extinguish sth*
kereo	*be scraped*	gereo-ti-	*scrape sth*
liiweli	*be changed*	liiweli-	*change, replace sth*
mmweiu	*be broken off*	mweiu-ti-	*break sth*

Table 2.7 (cont)

intransitive		transitive	
(c) two transitive forms			
ffaro	*be tight*	faro-gi-	*tie sth tight, bind sth tight*
		ge-ffaro	*make sth tight*
ngiutiu	*be full, filled compactly*	ngiutiu-	*fill sth compactly, stuff sth full*
		ga-ngiutiu	*fill sth tightly*
shiitage	*begin, start*	shiitage-	*begin, start sth*
		ga-shiitage-	*begin sth*

(data from Sohn & Tawerilmang 1976)

Examples of the different groups of Undergoer subject verbs in Boumaa Fijian are given in Table 2.8. In Boumaa Fijian, as in Kwaio, the largest group, with 112 of the 145 verbs, are those transitivised by the transitive suffix *-Ca*. The second largest group, with 23 of the 145 verbs, are those transitivised with the causative prefix *va'a-*. And 10 verbs have both transitive forms.

Table 2.8: Undergoer subject verbs in Boumaa Fijian

intransitive		transitive	
(a) transitivised with the causative prefix *va'a-*			
balavu	*be tall, long*	va'a-balavu-ta'ina	*make sth long*
buta	*be cooked, ready to eat*	va'a-buta-ra	*cook sth*
daro	*be postponed*	va'a-daro-ya	*postpone sth*
macala	*be clear, intelligible*	va'a-macala-ta'ina	*make clear, explain sth*
rusa	*be destroyed, decayed*	va'a-rusa-a	*destroy sth*
yaga	*be useful*	va'a-yaga-ta'ina	*use sth*

Table 2.8 (cont)

intransitive		transitive	
(b) transitivised with *-Ca*			
basu	*be torn (down)*	basu-'a	*tear sth (down)*
beti	*be plucked*	beti-a	*to pluck sth (fruit)*
cavu	*be pulled up, uprooted*	cavu-ta	*pull up, uproot sth*
dola	*be opened, revealed*	dola-va	*open, reveal sth*
gede	*be shaking*	gede-a	*shake sth*
musu	*be broken*	musu-'a	*break sth*
sava	*be washed*	sava-ta	*wash sth*
tala	*be shared out, unloaded*	tala-ca	*share out, unload sth*
tara	*be built (house)*	tara-a	*build sth (a house)*
uli	*be mixed up*	uli-a	*mix, stir up sth*
(c) two transitive forms			
pono	*be caught with hands*	pono-'a	*catch sth with hands*
		va'a-pono-'a	*make a determined effort to catch sth*
saqa	*be cooked, boiled*	saqa-ra	*boil, cook sth in pot*
		va'a-saqa-ra	*boil, cook sth in pot*
		va'a-sogo-ta	*try hard to close sth*
tawa	*be inhabited*	tawa-na	*inhabit sth*
		va'a-tawa-na	*fill, make sth inhabited*

(data from Dixon 1988)

The fourth language for which a dictionary search was done is Motu. Table 2.9 gives examples of Undergoer subject verbs in each of the three morphological classes. In Motu, as in Woleaian, by far the largest group of verbs are those transitivised with the causative prefix *ha-*, including 51 of the 56 forms. The other two groups are very small, with only 3 verbs found to be transitivised with the transitive suffix and/or object suffixes and only 1 which has two transitive forms.

Table 2.9: Undergoer subject verbs in Motu

intransitive		transitive	
(a) causative prefix *ha-*			
bada	*be large, great*	ha-bada-i-	*make large, enlarge sth*
bubuni	*be covered*	ha-bubuni-	*cover sth*
gari	*be afraid*	ha-gari-	*frighten sth*
honu	*be full*	ha-honu-	*fill, make sth full*
idita	*be bitter*	ha-idita-i-	*make sth bitter*
keru	*be cold*	ha-keru-	*make sth cold*
lababa	*be wide*	ha-lababa-i-	*broaden, make sth broad*
mage	*be ripe*	ha-mage-	*cause sth to ripen*
maka	*be broken*	ha-maka-i-	*break edge of sth*
mase	*die*	ha-mase-	*to cause to die, kill s.o.*
ore	*be finished, done*	ha-ore-	*to finish, exterminate sth*
veve	*be melted*	ha-veve-	*cause sth to melt*
(b) transitive suffix and/or object suffixes			
ahu	*be closed*	ahu-	*close sth*
ara	*be lit*	ara-i-	*set fire to sth*
haraka	*be burnt in cooking*	haraka-i-	*burn sth in cooking*
(c) two transitive forms			
bua	*die in numbers*	bua-i-	*massacre (people)*
		ha-bua-i-	*kill (people) wholesale*

(data from Lister-Turner & Clark 1954)

There are grammars of several languages which provide detailed descriptions of verb classes, including enough examples to allow for some comparison with the dictionary searches.

In Manam there are several ways in which a verb can be transitivised. Two of these, addition of a thematic consonant and zero derivation (other than the addition of an object suffix) reflect the Proto Oceanic transitive suffix **-i* and the addition of object enclitics[12]. The causative prefix **pa[ka]-* is reflected in Manam as the transitivising prefix *aʔa-*. Undergoer subject verbs are transitivised by all three of these derivations. In

[12] Chapter 3, section 3.3.1.2.1 gives a more detailed description of this.

Manam the way in which a verb is transitivised is lexically determined so that, on the whole, some verbs take one type of derivation and others take another, but most verbs do not have more than one transitive form. Table 2.10 gives examples of Undergoer subject verbs in Manam that are transitivised with the prefix *aʔa-* and those that are transitivised by the addition of a thematic consonant and/or the object suffixes. I have found no examples of Undergoer subject verbs which have two transitive forms, one with *aʔa-* and one with a thematic consonant and/or the object suffixes.

Table 2.10: Undergoer subject verbs in Manam

intransitive		transitive	
(a) transitivised by the prefix *aʔa-*			
matoli	*be thick*	aʔa-matoli-	*thicken sth*
goaza	*be clean*	aʔa-goaza-	*clean sth*
salaga	*be long*	aʔa-salaga-t-	*lengthen sth*
uya	*be good*	aʔa-uya-ʔ-	*cure s.o.*
rodo	*be dark*	aʔa-rodo-ŋ-aʔ-	*darken sth*
tuʔura	*be short*	aʔa-tuʔura-ŋ-aʔ-	*shorten sth*
(b) transitivised by a thematic consonant and/or object suffixes			
pitiʔawa	*be shiny, shine*	pitiʔawa-	*cause sth to be shiny*
ado	*be straight*	ado-r-	*straighten sth*
dambuʔe	*be moist*	dambuʔe-r-	*moisten sth*
(c) two transitive forms			
no members found			

(data from Lichtenberk 1983: 227-235)

Mekeo appears to have similar morphological classes of Undergoer subject verbs to Manam. Some forms, like those listed under (a) in Table 2.11, are transitivised with the causative prefix BA-, whereas other forms, like those listed under (b), are transitivised with the addition of an object marker (Jones 1998: 240-242 & 272-277)[13]. The object marker in Mekeo comprises an obligatory object suffix preceded by an

[13]Jones (1998) describes four dialects of Mekeo: East Mekeo; West Mekeo; North Mekeo and North-West Mekeo, and gives examples from all four. Thus BA- is used to represent the different forms of the causative prefixes: *pa-*; *ba-*; *ba-*; *βa-*, from the different dialects, respectively. Examples given here are also from different dialects.

optional thematic consonant and the perfective aspect marker *-i* (Jones 1998: 228-234). This sequence of *-i* aspect marker and object suffix, reflects the Proto Oceanic transitive suffix **-i* and the object enclitics. The forms which are transitivised with the addition of an object marker can also take the causative prefix *BA-*, but the translation of the example given, shown here as (26), suggests that the causative prefix is attached to the already transitive form of the verb *kupu-a* 'to block sth'. Not all the verbs in Table 2.11 are given with their transitive forms. This is because, although Jones (1998) lists verbs belonging to each class, he does not give the transitive forms of all the verbs.

26) e-pa-kupu-a
3sg-CAUS-block-3sg
He/she made someone block something.

(Jones 1998: 242)

Table 2.11: Undergoer subject verbs in Mekeo

intransitive		transitive	
(a) transitivised with *BA-*			
belo	*be good*	ba-belo-	*make sth good*
faʔa	*be big*	pa-faʔa-	*make sth big*
isafa	*be sick*	pa-isafa-n-i-	*make sth sick*
mapu	*be bad*	lipu	*be spoilt*
aiwa	*be ripe*	mekia	*be sweet, tasty*
maini	*be empty*	uma-uma	*be black*
gia	*recoil, pop up*	ŋape-ŋape	*be kind*
kua	*bend over, droop*	pua	*end, finish*
(b) transitivised with object markers			
maŋe	*be smooth*	maŋe-i-	*to smooth sth*
kapu	*be plucked*	kapu-i-	*to pluck sth*
kupu	*be blocked*	kupu-ŋ-	*to block sth*
ŋoe	*become undone*	gabu	*be sought*
gai	*move*		
(c) two transitive forms			
no members			

(data from Jones 1998)

In Hoava the opposite of Manam and Mekeo seems to occur. That is, all Undergoer subject verbs which can be transitivised with the transitive suffix and/or object suffixes can also be transitivised with the causative prefix *va-*. These verbs, listed under (c) in Table 2.12, contrast with other Undergoer subject verbs, listed under (a), which have only one transitive form derived with the causative prefix *va-* (Davis 1997: Sections 5.2.1 & 5.2.2). The transitive forms are given for only a few of the verbs in Table 2.12. The other verbs are listed as belonging to these classes, but their transitive forms are not given in Davis (1997).

Table 2.12: Undergoer subject verbs in Hoava

intransitive		transitive	
(a) transitivised with *va-*			
ziŋara	*be red*	va- ziŋar-i-	*make sth be red*[14]
kisi	*be small, slow*	va-kisi-	*make sth be small*
buma	*be green*	vaqaru	*be new*
hupa	*be black*	koe	*be old*
lavata	*be big*	rerege	*be fast*
gele	*be tall*	kalea	*be bad*
boboko	*be round*	lea	*be good*
ŋirisi	*be narrow*	koleo	*be good*
(b) transitivised with *-i* and/or the object suffixes			
no members			
(c) two transitive forms			
ibu	*be cold*	ibu-	*chill s.o.*
		va-ibu-	*make sth cold*
tukele	*be open*	tukel-i-	*open sth*
		va-tukel-i-	*make sth be open*
pezi	*be blunt*	tuke	*be thrown away*
tuku	*be shut*	podo	*be born*
raqo	*be blocked*	honi	*be leaking*
		ŋahu	*be in pain*

(data from Davis 1997: Sections 5.2.1 & 5.2.2)

[14] Orthographic *ŋ* in Hoava has been changed to *ŋ*.

Evidence from seven Oceanic languages has been examined. There is considerable variation in their testimony regarding the number of morphological classes of Undergoer subject verbs. What conclusions can be drawn about the situation in Proto Oceanic?

Manam and Mekeo seem to match the situation reconstructed by Pawley (1973), with two discrete classes of Undergoer subject verbs, one which has transitive forms with the causative prefix and the other which has transitive forms with the transitive suffix and/or the object suffixes. Hoava, on the other hand, matches the situation reconstructed by Ross (1998b), with two classes of Undergoer subject verbs, one with only one transitive form, derived with the causative prefix, and the other with two transitive forms, one derived with the transitive suffix and/or object suffixes and the other derived with the causative prefix.

The three Central/Eastern Oceanic languages and Motu, for which the more detailed dictionary data is available, have three morphological classes of Undergoer subject verbs: (a) those which are transitivised with the causative prefix; (b) those transitivised with the transitive suffix and/or the object suffixes; and (c) those which have two transitive forms, one with the transitive suffix and/or the object suffixes and another with the causative prefix.

Table 2.13 gives the figures and percentages of each group of Undergoer subject verbs in the four languages for which dictionary searches were done. In all four languages the Undergoer subject verbs which can be transitivised by either the causative prefix or the transitive suffix and/or the object suffixes make up the smallest group. In both Kwaio and Boumaa Fijian the largest group are those which are transitivised with the transitive suffix and/or the object suffixes. In Woleaian and Motu, on the other hand, the largest group are those that are transitivised with the causative prefix.

Table 2.13: Classes of Undergoer subject verbs

	Motu		Kwaio		Woleaian		Boumaa Fijian	
(a) causative prefix	51	91%	23	25%	190	74%	23	16%
(b) transitive suffix	3	5%	50	55%	63	25%	112	77%
(c) both	2	4%	18	20%	3	1%	10	7%
total no. of verbs	56		91		256		145	

Clearly Proto Oceanic had two classes of Undergoer subject verbs, those transitivisied with **pa[ka]-* and those transitivised with **-i* and/or the object enclitics. The fact that class (c), verbs with two transitive forms is small or absent in all languages examined, except Kwaio, suggests it was small or absent in Proto Oceanic. The presence of class (c) verbs in Proto Oceanic would be supported if some difference in meaning between the two transitive forms could be reconstructed.

In Hoava, where all the Undergoer subject verbs that can be transitivised by the transitive suffix and/or the object suffixes apparently also have transitive forms with the causative prefix, Davis (1997) does not discuss any contrast between the two forms, but they are given different translations, as shown below.

tukele	*be open*	va-tukel-i-	*make sth be open*
		tukel-i-	*open sth*
ibu	*be cold*	va-ibu-	*make sth cold*
		ibu-	*chill s.o.*

(Davis 1997: Section 5.2.2)

Kwaio verbs with two transitive forms are listed in Table 2.14. In Kwaio sometimes there is no apparent semantic contrast between the two transitive forms. These synonymous forms are listed under (i) in Table 2.14. With other verbs, like those listed under (ii), the two transitive forms have contrasting meanings. While with these forms there is clearly a difference between the transitive form with the transitive suffix and/or the object suffixes and the transitive form with the causative prefix, there does not appear to be a consistent difference between the two derivations. Rather different meanings are lexicalised.

Table 2.14: Kwaio Undergoer subject verbs with two transitive forms

intransitive		transitive	
(i) no meaning difference			
basu	*be warned*	basu-	*warn s.o.*
		fa'a-basu-	*warn s.o.*
bono	*be closed, shut*	bono-si-	*shut sth*
		fa'a-bono-	*shut sth*
fou	*be public, be disclosed*	fou-le'eni-	*disclose sth*
		fa'a-fou-	*disclose sth*
muda	*be all finished*	muda-	*finish sth*
	be completely used up	fa'a-muda-	*finish sth*
susu	*suck*	susu-fi-	*suckle s.o.*
		fa'a-susu-fi-	*suckle, nurse s.o.*
(ii) difference between the two forms			
abu	*be off-limits*	abu-nge'eni-	*forbid, sacralise sth*
		fa'a-abu-	*observe sacredness of*
baka	*be empty, extinguished, dry*	baka-	*dry, empty sth*
		fa'a-baka-	*extinguish sth*
nabe	*be placid, quiet, peaceful*	nabe-si-	*look after, care for s.o.*
		fa'a-nabe-	*quiet, pacify s.o.*
tala	*fail, miss*	tala-fi-	*dodge sth, cause to miss*
		fa'a-tala-	*ward sth off*

(data from Keesing 1975, n.d.)

In Woleaian only three Undergoer subject verbs appear to have the two types of transitive derivations. With two of these, *ngiutiu* 'to be full, filled compactly' and *shiitage* 'to begin, start', there appear, from the glosses given in Sohn and Tawerilmang (1976), to be no difference in meaning between the two transitive forms (see Table 2.7). With the other verb, *ffaro* 'to be tight', there does seem to be a difference in meaning between the two transitive forms. The verb derived with the causative prefix, *ga-ffaroo*, means 'make it tight', and the verb derived with the transitive suffix, *faro-gii*, means 'tie it tight' or 'bind it tight'.

In Motu only one Undergoer subject verb was found with two transitive forms. The two transitive forms of *bua* 'to die in numbers' are given different translations,

bua-i-a 'to massacre' and *ha-bua-i-a* 'to kill wholesale', but it is unclear exactly how they differ.

In Boumaa Fijian the situation is rather different from the other languages. Here there is a regular difference between the two transitive forms of an Undergoer subject verb, such that the causative prefix *va'a-* implies special volition or effort on the part of the agent participant. Thus *pono-'a* means 'to catch with the hands', in contrast to *va'a-pono-'a* which means 'to make a determined effort to catch'. Examples that show this kind of contrast are listed under (i) in Table 2.15. This use of *va'a-* also occurs with some Actor subject verbs. However, in the case of Actor subject verbs Dixon (1988: 51 & 188-189) suggests that it is best to consider the *va'a-* form as derived from the transitive form. Dixon (1988: 188-189) argues that the same analysis does not hold for Undergoer subject verbs, as it is only some Undergoer subject verbs with which *va'a-* has this function, and such an analysis would not reflect the causative function of *va'a-* common to all Undergoer subject verbs with which it occurs.

There are some Undergoer subject verbs in Boumaa Fijian that have two transitive forms with no apparent difference in meaning. These are listed under (ii) in Table 2.15. The forms listed under (iii) show a difference in meaning between the two transitive forms other than the 'special effort' one mentioned above. With two of the forms the difference is in the role of the A argument. Dixon (1988: 185-187) gives examples illustrating this difference for *'au* 'to be carried'. In (27) *'au* occurs in its intransitive form. In (28) the *-Ca* transitive form occurs and the A argument is the participant doing the 'carrying' or 'taking'. In (29) the *va'a-* form of the verb occurs and the A argument is the participant that causes the 'carrying' or 'taking' to be done, but is not the carrier or taker.

27) e 'au yane [a i-vola]$_S$
3sg carry DIR ART NOM-write
The letter is being taken/sent.

(Dixon 1988: 185; gloss mine)

28) e 'au-ta yane [a i-vola]$_O$ [a cauravou]$_A$
3sg carry-TR DIR ART NOM-write ART youth
The youth is taking the letter.

(Dixon 1988: 185; gloss mine)

29) e va'a-'au-ta yane [a i-vola]$_O$ [a marama]$_A$
3sg CAUS-carry-TRDIR ART NOM-write ART married.woman
The woman is sending (eg. posting) the letter.
(Dixon 1988: 185; gloss mine)

Table 2.15: Undergoer subject verbs with two transitive forms in Boumaa Fijian

(i) *va'a-* has special effort meaning			
cega	*be lifted up, turned*	cega-ta	*lift sth up by one side, turn page*
		va'a-caga-a	*turn up assiduously (eg. try to find page in a book)*
pono	*be caught*	pono-'a	*catch sth with the hands*
		va'a-pono-'a	*make a determined effort to catch sth*
rogo	*be audible*	rogo-ca	*hear sth*
		va'a-rogo-ca	*listen to sth*
sogo	*be closed*	sogo-ta	*close sth*
		va'a-sogo-ta	*try hard to close sth*
(ii) no apparent difference between transitive forms			
cabo	*be presented*	cabo-ra	*make presentation*
		va'a-cabo-ra	*make presentation*
saqa	*be boiled, cooked*	saqa-ra	*boil, cook sth in pot*
		va'a-saqa-ra	*boil, cook sth in pot*
tuu	*stand, be at a place*	tu-ra	*stand sth up*
		va'a-tu-ra	*stand sth up*
(iii) difference in meaning between transitive forms			
dina	*be true, genuine, real*	dina-ta	*believe in, think sth true*
		va'a-dinadina-ta'ina	*confirm sth*
tawa	*be inhabited*	tawa-na	*inhabit somewhere*
		va'a-tawa-na	*fill, make sth inhabited*
'au	*be carried*	'au-ta	*carry, take or bring goods*
		va'a-'au-ta	*send (goods or letter)*

(data from Dixon 1988)

Of the languages described it is only in Boumaa Fijian that there is a clear difference between the two transitive forms of an Undergoer subject verb, and then only with certain verbs. Here the causative prefix implies special effort on the part of the agent participant. Could this 'special effort' use have also been present in Proto Oceanic? Chapter 6 looks at reflexes of the causative prefix **pa[ka]-*, and finds, outside of Fijian, only one other language with similar function. This is Mangap-Mbula (NNG), where the causative prefix *p-* when attached to highly transitive verbs indicates increased effort on the part of the agent participant (Bugenhagen 1995: 174-175). While the Boumaa Fijian and Mangap-Mbula 'special effort' and 'increased effort' uses of the causative prefix could clearly have developed from a single original use, the fact that similar uses of **pa[ka]-* reflexes have not been found elsewhere suggests that they reflect independent innovations and are not reconstructable for Proto Oceanic[15]. This suggests that perhaps historically in Boumaa Fijian the 'special effort' function with Actor subject and Undergoer subject verbs is one and the same, although synchronically Dixon (1988) analyses them as different. This also indicates that the other Undergoer subject forms with *va'a-* may reflect the Proto Oceanic system.

Another contrast between the two transitive forms in Boumaa Fijian is in the role of the A argument, whereby verbs such as *'au-ta* 'take, carry' and *va'a-'au-ta* 'send' differ according to whether the participant expressed as the A argument does the action or causes it to be done by someone else. It is possible that this contrast was present in Proto Oceanic. The glosses given for the Hoava forms *tukeli-a* 'open it' versus *va-tukeli-a* 'make it be open', and *ibu-a* 'chill him/her' and *va-ibu-a* 'make it be cold' suggest the possibility of a similar difference between the two transitive forms there. However, there is not enough data to say for sure. There does not seem to be any clear evidence of such a difference in Kwaio.

It seems likely that in the Proto Oceanic system there were two classes of Undergoer subject verbs: (a) those transitivised with the causative prefix **pa[ka]-*; and (b) those transitivised with the transitive suffix **-i* and/or the object enclitics. A small number of verbs were not strictly in one or other class and thus occurred with both types of transitive forms. It is possible that the difference between a transitive form of an Undergoer subject verb with **pa[ka]-* and a form transitivised with **-i* and/or the object enclitics involved, or came to involve, a difference in the role of the participant expressed as the A argument, perhaps in terms of direct and indirect causation as in

[15] Hopper and Thompson (1980: 264) note several languages where one morpheme is used to mark both causatives and intensives, including Arabic and Chichewa (Bantu), and in Indonesian the suffix *-kan* (a cognate of Proto Oceanic **akin[i]*). This suggests that such a correlation of functions is not unnatural and may easily have developed independently in Boumaa Fijian and Mangap-Mbula.

Boumaa Fijian. The Kwaio forms suggest that any original differences in shades of meaning have become emphasised and lexicalised, with each transitive form now having different, but related, meanings.

2.3.2.3 THE SEMANTICS OF UNDERGOER SUBJECT VERBS

The morphosyntactic classes of Undergoer subject verbs in modern Oceanic languages are well-defined and the reconstruction of similar classes for Proto Oceanic well supported. But does the contrast in grammatical behaviour correlate closely with a semantic difference? This section deals with this question and goes on to consider the semantic types of verbs which may have shifted between the two morphosyntactic classes.

There are at least two ways to approach this question. The first involves lexical reconstruction. Reconstructing a large sample of verbs for Proto Oceanic should allow the testing of hypotheses about correlations between meaning and grammar. A problem with this approach is that it is often unclear from the modern reflexes of a particular verb whether it should be reconstructed as an Undergoer subject or an Actor subject verb. Reflexes of a Proto Oceanic verb will be Undergoer subject in some languages and Actor subject in others, and it is not always apparent which ones reflect the original. The second approach is to put forward hypotheses about the Proto Oceanic system on the basis of systems found in modern languages. That is, comparing the semantic types of verbs in the different classes in modern languages might show patterns that can be projected back to Proto Oceanic? A problem with this approach is that it reconstructs patterns rather than individual lexical units, and so lacks the particularising results which make historical inferences more secure. Due to the difficulty of reconstructing the morphosyntactic class of a given lexeme, it is this latter approach which will be attempted here.

A glance at the tables of Undergoer subject verbs in modern languages (Tables 2.6 to 2.12) shows that the semantic types of verbs which take an Undergoer subject are similar across languages. In most languages this class includes some forms which denote properties of objects (eg. big), that is, states, and some which denote events that affect objects in some way (eg. break), that is, processes and process-actions[16]. But is

[16] The categories of process and process-action form a continuum, but the difference between the two poles (as it is considered here) is that process-action situations imply the involvement of an agent

there a correlation between the two morphological classes of Undergoer subject verbs and semantic types? Ross (1998b: 21-22), also following the second approach, proposes a broad semantic difference between the two classes, whereby U-stative verbs, those transitivised with **pa[ka]-*, were inherently stative, and U verbs, those transitivised with **-i* and/or the object enclitics, could have either stative or dynamic interpretations.

I want to begin with a somewhat narrower approach and look at the semantic types of verbs that occur in each of the classes, to see if any patterns emerge. Before looking at the numbers of verbs denoting properties, processes and process-actions that occur as Undergoer subject verbs in Oceanic languages, a clearer definition of these types of verbs to be considered is needed. Ross (1998a, 1999) looks at adjectival forms in Oceanic languages and Proto Oceanic. It is the classification of property terms in these studies that is relevant to the present discussion. Property terms are taken to be forms denoting properties or characteristics of objects, where 'object' is used to include natural objects, artefacts, animals and humans, as well as reifications of states and events (Ross 1999: 1). Following Dixon (1977), Ross (1999) gives a modified list of semantic groups of property terms which is given here in Table 2.16. Undergoer subject verbs which fit into any of these semantic groups will be labelled property terms.

participant, whereas process situations do not. Verbs denoting both types of situations occur as Undergoer subject forms in Oceanic languages.

Table 2.16: Semantic categories of property terms after Ross (1999)

(1)	dimension	*big, small, long, short, wide, narrow, fat, thin*
(2)	age	*new, old, young*
(3)	value	*good, bad*
(4)	colour	*red, black, white, yellow*
(5)	physical property	
	(a) form	*straight, flat, rough, smooth*
	(b) weight	*heavy, light*
	(c) strength, toughness & speed	*strong, weak, hard, soft, quick, slow*
	(d) content	*full, empty*
	(e) temperature	*hot, cold*
	(f) wetness & dryness	*wet, dry*
	(g) conditions of vegetable matter	*ripe, unripe, raw, rotten*
	(h) physical conditions of animate beings	*dead, alive, healthy, sick, hungry, thirsty, itchy*
	(i) weather conditions	*calm, stormy*
(6)	human/animal propensity	*kind, clever, happy, jealous, tame*[17]
(7)	taste	*bitter, sweet, sour*
(8)	spatial orientation	*left, right*

The second group of verbs occurring as Undergoer subject verbs is those denoting processes or process-actions where the patient participant is affected in some way. Again, more detailed criteria are needed in order to determine more precisely how many such forms occur. In his grammar of English, Dixon (1991) proposes several broad classes of verbs, one of which is affect verbs. Affect verbs denote events where an agent moves or manipulates something so that it comes into contact with some thing or person. Thus such verbs involve three basic semantic roles: Agent, Manipulated Thing, and Target (Dixon 1991: 102)[18]. What is useful for the present study is that Dixon (1991: 105-113) divides affect verbs into eight different subtypes, each denoting different kinds of affect-type events. Table 2.17 gives each subtype with a description of

[17] While in some languages forms denoting human and animal propensity are Undergoer subject verbs and will be counted as such, these forms are considered in more detail in section 2.3.4.3 which looks at emotion verbs.

[18] Dixon (1991: 102) actually calls the participant which is the Manipulated Thing the Manip role.

the type of event involved and some example meanings. Undergoer subject verbs in Oceanic languages which will be called affect verbs fit into one of these eight categories. Verbs of the TOUCH-type in Oceanc languages appear to be consistently Actor subject forms, and no Undergoer subject TOUCH verbs were found in the dictionary searches. The category of HIT verbs also seem to generally be Actor subject verbs in Oceanic languages, and are described in section 2.3.3.

Table 2.17: Types of affect verbs after Dixon (1991)

Verb group		Type of event and example meanings
(a)	TOUCH	Manipulated Thing minimally comes into contact with the Target and there is no disturbance of the Target *touch, stroke*
(b)	HIT	Manipulated Thing is brought through air to impact on the Target *hit, punch, bash, hammer, shoot*
(c)	STAB	pointed or bladed Manipulated Thing penetrates below the surface of the Target *pierce, dig, cut, saw, chop, slice*
(d)	RUB	Manipulated Thing is manipulated to affect the surface of the Target *rub, wipe, scrape, brush, shave*
(e)	WRAP	Manipulated Thing moves in juxtaposition with the Target *wrap, cover, paint*
(f)	STRETCH	Agent uses Manipulated Thing to change the state or shape of the Target *stretch, bend, fold, squeeze, melt, freeze, heat, burn*
(g)	BUILD	Agent manipulates Manipulated Thing so as to create something (Product) *build, knit, weave, cook*
(h)	BREAK	Agent causes something to lose its physical unity *break, squash, wreck, smash, split*

So how accurate is the first impression that Undergoer subject verbs are typically property terms and affect verbs? And do these two semantic groups of verbs correlate with the two morphosyntactic classes of Undergoer subject verbs? As will be seen from the following analysis many, but not all, Undergoer subject verbs in Oceanic languages are indeed property terms and affect verbs, and these semantic groups do

indeed correlate with the two morphosyntactic classes. However, this correlation is only a tendency, and as shown by the examples given in Table 2.18 some verbs with similar meanings may belong to different morphosyntactic classes within a single language.

Table 2.18: Verbs with similar meanings in different classes

(a) causative prefix		(b) transitive suffix and/or object suffixes	
Kwaio			
foŋu	*be full*	dede	*be full, fill*
sui	*be finished, used up*	lete	*be finished*
babato'o	*be stable, secure*	ŋado	*be stable, settled*
Woleaian			
maripi	*be shattered, broken*	mmweiu	*be broken off*
taroperope	*be destroyed*	gulu	*be extinguished, destroyed*
Boumaa Fijian			
oti	*be finished*	tini	*be concluded*
rusa	*be destroyed, decayed*	bote	*be dismantled, demolished*
riri	*be boiled*	saqa	*be boiled, cooked*

(data from Keesing 1975, Sohn & Tawerilmang 1976 and Dixon 1988)

In Hoava the Undergoer subject verbs which can be transitivised with only the causative prefix *va-* form a 'neat' semantic class. As can be seen from Table 2.12 all the forms in this group are property terms, denoting dimension, age, value, colour, physical form and speed. The second class of Undergoer subject verbs in Hoava, those transitivised by *va-* or the applicative suffix, however, does not have any apparent semantic unity. Three of these forms, *pezi* 'be blunt', *ibu* 'be cold' and *ŋahu* 'be in pain', are also property verbs. None of the verbs in either class denote affect-type events, which seem to be Actor subject verbs in Hoava[19].

In Mekeo the two morphological classes of Undergoer subject verbs have clear semantic correlations (see Table 2.11). Undergoer subject verbs which are transitivised with the causative prefix BA- fall into two major semantic groups. One, which Jones (1998: 272-273) labels 'maintenance of state', includes verbs such as *mapu* 'bad', *aiwa*

[19] See example (14).

'ripe', *mekia* 'sweet' and *maeoa* 'long'. The other large group is 'spontaneous movement' verbs, those involving movement which typically take inanimate subjects, including forms such as *gia* 'recoil, pop up', *ŋipa* 'spring back' and *kua* 'bend over, droop' (Jones 1998: 276-277). There is also a third, and apparently smaller group, which Jones (1998: 273-274) labels 'change of state' verbs, that includes verbs such as *paga* 'spill, leak' and *ao* 'be extinguished'. The other group of Undergoer subject verbs, those transitivised with the object markers, is called 'analytical process' verbs (Jones 1998: 274-276). Analytical process verbs, described as denoting movement or change of state, typically take an inanimate subject, and include *lofe* 'to twist, curl', *kapu* 'be plucked', *kupu* 'be blocked' and *papa* 'be split'. Following the terminology used in this thesis, property terms and some motion verbs in Mekeo are Undergoer subject forms transitivised with the causative prefix, and affect verbs tend to be Undergoer subject forms transitivised with the object markers, although some affect verbs take the causative prefix.

In Manam both the Undergoer subject verbs which are transitivised with the causative prefix *a?a-* and those transitivised with the thematic consonants and/or the object suffixes appear to be property terms (see Table 2.10).

With languages for which dictionaries are available the proportion of each class of Undergoer subject verbs which fall into each semantic group can be estimated. This has been done with Motu, Kwaio, Woleaian and Boumaa Fijian, using the same dictionary searches as before, and the results are presented in Table 2.19. As can be seen, in all four languages Undergoer subject verbs transitivised with the causative prefix are at least three times more likely to be property terms than affect verbs. Undergoer subject verbs transitivised with the transitive suffix and/or object suffixes are twice as likely to be affect verbs than property terms in Kwaio, and many times as likely in the other three languages.

Table 2.19: Property terms and affect verbs as Undergoer subject forms

	property terms	affect verbs	total no. of Undergoer subject verbs
(a) transitivised with the causative prefix			
Motu	24	8	51
Kwaio	13	0	23
Woleaian	87	13	190
Boumaa Fijian	7	2	23
(b) transitivised with the transitive suffix and/or the object suffixes			
Motu	0	1	3
Kwaio	5	11	50
Woleaian	1	19	63
Boumaa Fijian	0	70	112

As can be seen from Table 2.19, not all the Undergoer subject verbs in each language fall into one or other of these semantic types. For example, in Kwaio 13 of the 23 Undergoer subject verbs transitivised by the causative prefix *fa'a-* are property terms and none are affect verbs, leaving 10 such verbs which do not fall into either of these semantic groups. Other types of verbs which occur as Undergoer subject ones across Oceanic languages include verbs of opening and closing, verbs of beginning and finishing, and some types of motion verbs.

Examples of verbs of opening and closing are given in Table 2.20, and, as can be seen in all the languages considered, such forms are transitivised with the transitive suffix and/or the object suffixes.

Table 2.20: Verbs of opening and closing

intransitive		transitive	
Verbs of opening			
Hoava			
tukele	*be open*	tukel-i-	*open sth*
Kwaio			
tafa	*be open, open up*	tafa-ni-	*open sth, make an opening through sth*
Boumaa Fijian			
dola	*be open, be revealed*	dola-va	*open sth, reveal sth*
Verbs of closing			
Motu			
ahu	*be closed*	ahu-	*close sth*
Mekeo			
kupu	*be blocked, closed*	kupu-n-i-	*block sth*
Hoava			
tuku	*be shut*	tuku-	*shut sth*
raqo	*be blocked*	raqo-	*block sth*
Kwaio			
boko	*blocked, shut*	boko-li-	*block, close sth*
fono	*shut*	fono-si-	*shut, block sth*
Woleaian			
miuliu	*closed, shut*	miuliu-	*close, shut sth*
pile-pile	*be closed*	pile-si-	*close, shut sth*
tti	*be closed, enclosed, shut*	ttii-	*close, shut sth*

(data from Davis 1997, Keesing 1975, Dixon 1988, Lister-Turner & Clark 1954, Jones 1998, Sohn & Tawerilmang 1976)

Verbs of beginning and finishing are given in Table 2.21. Forms with meanings denoting 'beginning' were found in Kwaio, Woleaian and Boumaa Fijian. In Kwaio and Boumaa Fijian such forms are transitivised in just one way, namely with the transitive suffix and/or the object suffixes, whereas in Woleaian the form meaning 'to begin' has two transitive forms. Verbs denoting finishing vary not only across languages, but also within languages. While in Motu and Mekeo such verbs are transitivised with the

causative prefix, in Boumaa Fijian there are two verbs of finishing, and each belong to a different morphological class. In Kwaio there are four verbs of finishing. Two are transitivised with the causative prefix, one with the transitive suffix, and the other has two transitive forms. It is not entirely clear from the dictionaries if the different verbs of finishing have different meanings, but this possibility is considered towards the end of the section.

Table 2.21: Verbs of beginning and finishing

intransitive		transitive	
Verbs of beginning			
Kwaio			
eta	*be beginning*	eta-	*begin, start sth*
Woleaian			
shiitage	*begin, start*	ga-shiitagee-	*begin sth*
		shiitagee-	*begin, start sth*
Boumaa Fijian			
te'evuu	*begin, start*	te'evuu-na	*begin, start sth*
Verbs of finishing			
Motu			
doko	*end, finish, stop*	ha-doko-a	*conclude, cause to stop*
ore	*be finished, done*	ha-ore-a	*finish, exterminate sth*
Mekeo			
pua	*end, be finished*	pa-pua	*finish sth*[20]
Kwaio			
naka	*be all finished*	fa'a-naka-	*finish sth*
sui	*be finished, used up, completed*	fa'a-sui-	*finish, complete sth*
muda	*be all finished*	fa'a-muda-	*finish sth*
		muda-	*finish sth*
lete	*be finished*	lete-fi-	*use sth up completely, finish sth*

[20] The Mekeo form *fua* 'end, be finished' is listed by Jones (1998) as being in the class of Undergoer subject verbs which are transitivised with the causative prefix. However, the form *pa-fua* is not listed in itself.

Table 2.21 (cont)

intransitive		transitive	
Boumaa Fijian			
oti	*be finished*	va'a-oti-	*finish sth*
tini	*be conclude*	tini-	*conclude sth*

(data from Keesing 1975, Dixon 1988, Sohn & Tawerilmang 1976, Lister-Turner & Clark 1954, Jones 1998)

It is only certain types of motion verbs which are Undergoer subject forms, others, as described in section 2.3.3, tend to be Actor subject forms. The motion verbs which occur as Undergoer subject verbs in Mekeo, Kwaio, Woleaian and Boumaa Fijian appear to be those which can have a non-volitional mover. However, while in Kwaio and Boumaa Fijian these forms are transitivised with the transitive suffix and/or the object suffixes, in Mekeo and Woleaian they are usually transitivised with the causative prefix. Manam also has a few motion-type Undergoer subject verbs, but these are transitivised with the suffix *-aʔ*, the reflex of Proto Oceanic **aki[ni]*. Table 2.22 gives examples of Undergoer subject motion verbs.

Table 2.22: Undergoer subject motion verbs

Manam			
gege	*roll, be rolling*	gege-aʔ-	*roll sth*
soalili	*twirl, be twirling*	soalili-ŋ-aʔ-	*twirl sth*
moaʔusu	*shake, be shaking*	moaʔusu-ŋ-aʔ-	*shake sth*
Kwaio			
bu'o	*roll, turn*	bu'o-si-	*roll sth up*
dila	*drop, slip*	dila-	*move sth aside*
gefu	*roll, capsize*	gefu-si-	*roll, capsize sth*
Woleaian			
buro	*fall, tumble down*	ga-buro	*turn sth upside down*
faani	*turn around*	ge-faani-	*turn sth around*
mworo	*fall*	ga-mworo	*let sth fall*
shappa	*be capsized*	ga-shepa	*capsize sth*

Table 2.22 (cont)

intransitive		transitive	
Boumaa Fijian			
po'i	*roll, be rolling*	po'i-	*roll sth*
sau	*be let down (net)*	sau-ca	*let sth down (net)*
si'i	*shift, move, be moving*	si'i-ta	*shift, move sth*
toso	*move, be moving*	toso-ya	*move sth*
tu'u	*be let down on rope*	tu'u-ca	*let sth down on rope*
vu'i	*turn, be turning*	vu'i-ca	*turn sth*

(data from Lichtenberk 1983, Keesing 1975, Sonh & Tawerilmang 1976 and Dixon 1988)

From these contemporary data, certain proposals about semantic correlations of the Undergoer subject verb classes can be put forward concerning Proto Oceanic. It is likely that in Proto Oceanic, as in modern languages, there was a tendency for verbs denoting properties to be Undergoer subject verbs transitivised with the causative prefix **pa[ka]-*. Affect verbs probably tended to be Undergoer subject verbs transitivised with the transitive suffix **-i* and/or the object enclitics. In more general terms these two morphological classes of Undergoer subject verbs may be classified as follows: (a) state verbs tended to be transitivised with **pa[ka]-*; and (b) process and process-action verbs tended to be transitivised with **-i* and/or the object enclitics. This is essentially the same conclusion as that of Ross (1998b), but in this thesis these two classes of verbs will be labelled U-stative verbs and U-process verbs, respectively.

It also seems fairly clear that verbs of opening and closing in Proto Oceanic, as in modern languages, were Undergoer subject verbs transitivised with **-i* and/or the object enclitics, that is U-process verbs. Verbs of beginning are also likely to have been U-process verbs, although examples of such U-process verbs have been found in only a limited range of languages.

Verbs of finishing appear at first to be a mixed bag. In Motu and Mekeo they are U-stative verbs transitivised with the causative prefix, and Kwaio and Boumaa Fijian have both U-stative verbs and U-process verbs of finishing. It seems probable that Proto Oceanic resembled Kwaio and Boumaa Fijian and had verbs of finishing in both morphosyntactic classes. The translations given for verbs of finishing in the dictionaries seem to be of two types: those referring to 'be finished' as in 'be used up'; and those referring to 'be finished' as in 'be ended' or 'be concluded'. Verbs of finishing in Proto

Oceanic with the 'be used up' type of meaning were probably U-stative verbs, denoting the state of being finished. Verbs of finishing which had the 'be ended' type of meanings were probably U-process verbs, denoting the process of finishing or ending. The Kwaio data support such a hypothesis to some extent. In Kwaio two verbs of finishing, *naka* 'all finished' and *sui* 'finished, used up' both appear to have the 'used up' type of meaning and are U-stative verbs. The verb *lete* 'finished' is not glossed with a 'used up' type of meaning, and it is a U-process verb. With verbs of finishing it is likely that the state and process meanings were equally typical, and these types of verbs thus seem to be candidates for having had or developing two transitive forms, as with *muda* 'all finished' in Kwaio.

It is likely that those motion verbs which could take a non-volitional or inanimate participant as S were Undergoer subject verbs in Proto Oceanic. But the question of their morphological class is less clear. Given that state verbs tended to be transitivised with **pa[ka]-* and process verbs to be transitivised with **-i* and/or the object enclitics, it is more likely that such motion verbs were U-process verbs in Proto Oceanic, transitivised with **-i* and/or the object enclitics, as they are in Kwaio and Boumaa Fijian. This would mean that in Mekeo and Woleaian such verbs have on the whole changed class.

2.3.3 ACTOR SUBJECT VERBS

All Oceanic languages have intransitive and transitive forms of verbs in which the S and A arguments correspond, and it follows that Proto Oceanic also had such a class of Actor subject verbs. But what semantic types of verbs were in this class and what types of valency-changing devices did they take?

Dixon (1988: 204-214) describes the semantic types of verbs which are Actor subject verbs in Boumaa Fijian, and these are a useful place to start when considering Actor subject verbs in the wider Oceanic context. The semantic classes which Dixon puts forward include:

(i) verbs of mode or direction of motion
(ii) verbs of throwing and hitting
(iii) verbs of corporeal activity
(iv) verbs of speaking

Such semantic groups are also Actor subject verbs in other Oceanic languages. Motion verbs which are Actor subject across languages are often ones denoting modes of motion with meanings such as 'run', 'jump' and 'crawl', and ones denoting direction of motion such as 'go' and 'come'. Table 2.23 gives examples of from three languages and these appear to be consistently Actor subject forms.

Table 2.23: Actor subject verbs of modes and direction of motion

intransitive		transitive	
Hoava			
haqala	*run*	haqal-i-	*run along sth*
vose	*paddle*	vose-	*paddle sth*
nuquru	*enter*	nuqur-i-	*enter sth*
Kwaio			
aŋo	*crawl, creep*	aŋo-fi-	*crawl towards, stalk sth*
bala'au	*swim*	bala'au-	*swim to sth*
fane	*climb, go up*	fane-fi-	*climb sth*
olo	*leap, jump*	olo-fi-	*jump to, spring at sth*
Boumaa Fijian			
lade	*jump*	lade-va	*jump for/over sth*
yaqa	*creep*	yaqa-va	*creep to sth*
vu'a	*fly*	vu'a-ca	*fly across/to sth*
'ada	*run*	'ada-va	*run for sth*
bale	*fall*	bale-ta	*fall on sth*

(data from Davis 1997, Keesing 1975 and Dixon 1988)

Verbs of throwing and hitting also seem to consistently be Actor subject across languages, as can be seen from the examples given under (i) in Table 2.24. Verbs of throwing are those denoting actions in which an agent causes a detachable object to travel through the air, for example, 'throw' and 'spear'. Verbs of hitting are those that describe an agent delivering a blow to something (Dixon 1988: 209), and include meanings like 'hit', 'slap' and 'kick'. Under (ii) in Table 2.24 are some verbs of hitting which are Undergoer subject in two Fijian languages. Such Undergoer subject verbs appear to occur only in Fijian languages and generally alongside other verbs of hitting that are Actor subject.

Table 2.24: Actor subject verbs of throwing and hitting

intransitive		transitive	
(i) Actor subject forms			
Motu			
tahotaho	*throw about aimlessly*	taho-	*throw to s.o./sth*
botabota	*beat again and again*	bota-i-	*beat, thrash sth*
Hoava			
gona	*throw*	goná	*pelt sth*
Kwaio			
a'o	*throw*	a'o-	*throw sth*
fida	*slap, smack*	fida-li-	*slap, smack sth*
'ui	*throw, shoot*	'ui-	*shoot, throw at sth*
k^{w}a'i	*strike*	k^{w}a'i-	*strike, hit, kill sth*
Woleaian			
peo	*to hit, strike*	peo-li-	*hit sth*
shepe	*kick*	shepe-gi-	*kick sth*
toutou	*to spear*	touu-	*spear sth*
Bauan Fijian			
moku	*strike with a club*	moku-ta	*strik sth with a club*
tuki	*strike, hammer, knock*	tuki-a	*strike, hammer sth*
vacu	*punch with fist*	vacu-ka	*punch sth with fist*
sabi	*slap*	sabi-ca	*slap sth*
Boumaa Fijian			
drama	*throw*	drama-'a	*throw at sth*
'olo	*throw a stick*	'olo-va	*throw a stick at sth*
co'a	*spear*	co'a-a	*spear sth*
vacu	*punch*	vacu-'a	*punch sth*
rabe	*kick*	rabe-ta	*kick sth*
vana	*shoot*	vana-a	*shoot sth*
Wayan Fijian			
caqe	*kick*	caqe-ti-	*kick sth*
tiqe	*throw (as dart)*	tiqe-vi-	*hit sth with dart*
viri	*throw, hurl*	viri-ki-	*pelt, throw at sth*
vucu	*punch, hit*	vucu-ki-	*punch, hit sth*

Table 2.24 (cont)

intransitive		transitive	
(ii) Undergoer subject forms			
Boumaa Fijian			
motu	*beat with a club*	motu-'a	*beat sth with a club*
samu	*beat with a stick*	samu-ta	*beat sth with a stick*
tu'i	*strike, knock*	tu'i-a	*strike, knock at sth*
Wayan Fijian			
cali	*be punched*	cali-	*punch sth*
nani	*be hit, given a blow*	nani-	*pound, thump, ram sth*
rotu	*be punched*	rotu-ki-	*punch sth*
ravu	*be hit, beaten*	ravu-ti-	*hit, beat sth*
salu	*be struck with flat instrument*	salu-ti-	*strike sth with an instrument*

(data from Lister-Turner & Clark 1954, Davis 1997, Keesing 1975, Sohn & Tawerilmang 1976, Dixon 1988, Capell 1968 and Pawley & Sayaba n.d.)

Corporeal verbs denote bodily functions, including consumption, excretion and secretion and other natural bodily processes. As can be seen from Table 2.25, verbs with these kinds of meanings are Actor subject in a number of languages.

Table 2.25: Actor subject corporeal verbs

intransitive		transitive	
Motu			
kanudi	*spit*	kanudi-	*spit on sth*
Manam			
ʔulena	*vomit*	ʔulena-r-	*vomit on sth*
moŋo	*spit*	moŋo-r-	*spit on sth*
Kwaio			
damu	*chew*	damu-	*chew sth*
go'u	*drink*	go'u-fi-	*drink sth*
mimi	*urinate*	mimi-si-	*urinate on sth*

Table 2.25 (cont)

intransitive		transitive	
Woleaian			
iuliu	*drink*	iuliu-mi-	*drink sth*
kaleoleo	*urinate*	kaleoleo-ti-	*urinate on sth*
lewelewe	*lick*	lewe-gi-	*lick sth*
liuliu	*chew*	liuliu-	*chew sth*
Boumaa Fijian			
unu	*drink*	unu-ma	*drink sth*
tubu	*grow*	tubu-ra	*grow on sth*

(data from Lister-Turner & Clark 1954, Lichtenberk 1983, Davis 1997, Keesing 1975, Sohn & Tawerilmang 1976 and Dixon 1988)

Table 2.26 below gives examples of verbs of speaking from five languages. Verbs of speaking include not only verbs denoting speaking, but also those denoting other types of vocalisations. Such verbs are regularly Actor subject.

Table 2.26: Actor subject verbs of talking

intransitive		transitive	
Manam			
mere	*shout*	mere-	*shout at sth/s.o.*
nanari	*tell a story*	nanari-t-aʔ	*tell a story about sth*
ŋui	*mumble, hum*	ŋui-ŋ-aʔ	*mumble, hum sth*
ezu	*whistle*	ezu-l-	*whistle at sth/s.o.*
Hoava			
kikiu	*call*	kikiu-i-	*call s.o.*
nanasa	*ask*	nanas-i-	*ask s.o.*
pato	*speak*	pato-	*speak to s.o.*
kabo	*cry*	kabo-ni-	*cry for s.o.*

Table 2.26 (cont)

intransitive		transitive	
Kwaio			
fata	*speak, talk*	fata-	*talk to, tell s.o.*
ŋulu	*whisper*	ŋulu-	*whisper sth*
ŋuu	*sing*	ŋuu-	*sing sth*
ani	*cry*	ani-si-	*cry for s.o.*
Woleaian			
bariugiu	*sing*	bariugiu-	*sing for s.o.*
tiuttiula	*gossip*	tiulee-	*talk about sth*
Boumaa Fijian			
bose	*confer*	bose-	*confer over sth*
masu	*pray*	masu-	*pray to s.o.*
laga	*sing*	laga-ta	*sing sth*
tagi	*cry*	tagi-ca	*cry for s.o.*
'alo	*whistle*	'alo-va	*whistle at sth/s.o.*

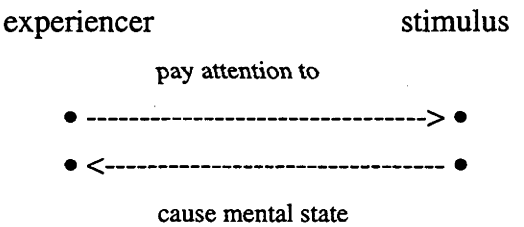
(data from Lichtenberk 1983, Davis 1997, Keesing 1975, Sohn & Tawerilmang 1976 and Dixon 1988)

It seems likely that these same semantic types which are Actor subject in the modern Oceanic languages, were also Actor subject in Proto Oceanic. In more general semantic terms, Actor subject verbs appear to be those denoting action and process-action situations where the patient participant is not highly affected. Verbs of hitting are the only category which appear to include exceptions. Section 2.4 looks in more detail at this generalisation.

The above tables of data also demonstrate the types of valency-changing devices which occur in modern languages with Actor subject verbs. Most of the verbs have an unmarked intransitive form and a transitive form which takes the transitive suffix and/or object suffixes, and the same is considered to have been the case in Proto Oceanic. That is, most Actor subject verbs were transitivised with **-i* and/or the object enclitics. Some verbs have a transitive form with the transitive suffixes and/or object enclitics and a reduplicated intransitive form. This type of device is described in section 2.3.6.1. Actor subject verbs in Proto Oceanic could also have causativised forms with the prefix **pa[ka]-* and this is discussed in Chapter 6.

2.3.4 VERBS TAKING EXPERIENCER AND STIMULUS ROLES

So far the verbs which have been classified as Actor subject or Undergoer subject are those with which the macrorole of the S argument has directly correlated with the semantic roles of agent and patient. With such verbs there is generally agreement in modern languages about their classification as Actor subject and Undergoer subject, respectively. But what about verbs which take arguments with the roles of experiencer and stimulus? That is, verbs of perception (eg. see, hear, smell), cognition (eg. think, know, dream) and emotion (eg. be happy, be afraid, be angry). With these verbs there is considerable variation in their classifcation in modern languages, but did they pattern consistently as Actor subject verbs or Undergoer subject verbs in Proto Oceanic, or were they split between the two groups? These types of verbs show considerable cross-linguistic variation in subject and object assignment, because often there is no inherent directionality of causation (Croft 1991: 213 & 217). There are two processes involved in possessing and/or changing a mental state: (i) the experiencer paying attention to the stimulus; and (ii) the stimulus causing the experiencer to be in, or enter into, that mental state (Croft 1991: 214-219). This can be schematised in the following way:



(Croft 1991: 219)

Thus with different verbs the semantic roles of experiencer and stimulus will be assigned to the different grammatical roles of subject (A) and object (O) depending on which process is considered to be the more crucial in causing the event or state to occur. Generally the A argument will express the participant perceived as having more control over the situation denoted by the verb. If the process of the stimulus causing the mental state is considered more crucial, then the stimulus is more likely to be expressed as A and the experiencer as O. However, if the experiencer paying attention to the stimulus is considered more crucial, then the experiencer is more likely to be expressed as A and the stimulus as O.

This section considers verbs of perception, cognition and emotion. There are some generalisations which can be made concerning all three groups of verbs, but each

group is considered separately. Perception and emotion verbs occur in Oceanic languages as both Actor subject and Undergoer subject. This variation is found across languages and within languages. Cognition verbs, on the other hand, tend to be Actor subject. Some exceptions to this are described in section 2.3.4.1. Perception, cognition and emotion verbs that are Actor subject are generally consistent in expressing the experiencer as intransitive S and transitive A and the stimulus as transitive O. This is demonstrated by (30) and (31) from Hoava. There are a few exceptions to this generalisation in Fijian languages and these are discussed in section 2.3.4.2.

30) umana la **[dia]**$_S$
hear go 3pl
They listened.

(Davis 1997: Section 5.11)

31) uman-i-a **[ria]**$_A$ [se Biliboa]$_O$
hear-TR-3sg PRO:3pl ART B.
They heard Biliboa.

(Davis 1997: Section 5.2.4)

Perception, cognition and emotion verbs that are Undergoer subject are less homogeneous. Perception verbs of this type tend to express the stimulus as intransitive S and transitive O, and the experiencer as transitive A, as shown by (32) and (33) from Wayan Fijian.

32) [qu]$_A$ rogō **[na le-a ogo]**$_O$
1sg:NONFUT hear:TR CN POSS-3sg cough
I heard her cough.

(Pawley & Sayaba n.d.; gloss mine)

33) sā rogo **[na idini]**$_S$
PERF audible CN engine
The engine has started. / The engine can be heard.

(Pawley & Sayaba n.d.; gloss mine)

Undergoer subject emotion verbs, however, express the experiencer as intransitive S and transitive O and the stimulus as transitive A. This is shown by (34) and (35) from Wayan Fijian.

34) sā kino nō
PERF be.ashamed CONT
He's ashamed.

(Pawley & Sayaba n.d.; gloss mine)

35) sā kino-cī-[au]$_O$ [na kwā a tarā]$_A$
PERF be.ashamed-TR-1sg CN thing 3sg do.TR
What he did made me ashamed.

(Pawley & Sayaba n.d.; gloss mine)

2.3.4.1 VERBS OF COGNITION

Verbs of cognition, that is, those denoting mental states or activities, tend to behave as Actor subject verbs in Oceanic languages, as shown by the examples given in Table 2.27. With these verbs the experiencer participant is expressed as S in intransitive clauses and as A in transitive clauses, as demonstrated in (36) and (37) from Erromangan (SO).

36) [**y**]$_S$-emevyac
3sg:DISTPAST-BR:dream
(S)he dreamt.

(Crowley 1998: 138)

37) [**yi**]$_A$-emevyog-[yau]$_O$
3sg:DISTPAST-BR:dream.about-1sg
(S)he dreamt about me.

(Crowley 1998: 138)

Table 2.27: Verbs of cognition

intransitive		transitive	
(ii) Actor subject forms			
Manam			
ʔawa	*know*	ʔawa-t-aʔ-	*know sth*
Hoava			
bubui	*forget*	bubui-i-	*forget sth*
gilali	*know*	gilali-	*know sth*
Kwaio			
bole	*dream*	bole-	*dream sth*
fii	*think, worry about*	fii-	*think, suspect sth*
North-East Ambae			
iloilo	*to be knowledgeable*	ilo-	*to know sth*
Woleaian			
mangimangi	*think, remember, ponder*	mangi-	*think about, remember sth*
Boumaa Fijian			
vuli	*learn*	vuli-ca	*learn sth*
tadra	*dream*	tadra-	*dream of sth*
Wayan Fijian			
bubui	*dream*	bubui-ti-	*dream of sth*
vuli	*learn*	vuli-ci-	*learn sth*

(data from Lichtenberk 1983, Davis 1997, Keesing 1975, Sohn & Tawerilmang 1976, Dixon 1988 and Pawley & Sayaba n.d.)

There are a few verbs which are exceptions to this tendency. The Wayan Fijian verb *vuli* 'to learn, be learnt' is both Actor subject and Undergoer subject. In Wayan the verb *numidei* 'be forgotten' is also Undergoer subject. Table 2.28 gives examples of verbs of counting in three languages. In Boumaa Fijian the verb *wili* 'to be counted' is an Undergoer subject form. In Woleaian there are several counting verbs, one of which is an Undergoer subject form and two of which are Actor subject forms. In Wayan Fijian the verb *wili* 'to be counted, to count', which is borrowed from Bauan Fijian, is both Actor subject and Undergoer subject. The old Wayan verb is *teli* 'be counted' which is an Undergoer subject verb. This verb also has a reduplicated form, *teliteli* 'count' which is Actor subject.

Table 2.28: Verbs of counting

Undergoer subject verbs		Actor subject verbs	
Woleaian			
ragi	*be counted*	gosogoso	*count*
ga-ragi-	*read sth*	goso-fi-	*count sth*
		paa-paa	*count*
		paa-ngi-	*count sth*
Boumaa Fijian			
wili	*be counted, read*		
wili-'a	*count, read sth*		
Wayan Fijian			
wili	*be counted*	wili	*count*
wili-	*count sth*	wili-	*count sth*
teli	*be counted*	teliteli	*count*
teli-	*count sth*	teli-	*count sth*

(data from Sohn & Tawerilmang 1976, Dixon 1988 and Pawley & Sayaba n.d.)

The generally consistent tendency across languages of cognition verbs to be Actor subject forms suggests that such forms were also Actor subject verbs in Proto Oceanic. However, it is possible that verbs of counting may have had Undergoer subject interpretations.

2.3.4.2 PERCEPTION VERBS

Perception verbs are considered here under the four more specific types of hearing, seeing, smelling and tasting. These types of verbs are considered together because they form a semantic group, but as will be seen they behave somewhat differently in terms of morphosyntax.

As shown by examples (30) and (31) from Hoava and (32) and (33) from Wayan Fijian verbs of hearing are Actor subject forms in some languages and Undergoer subject forms in others. Table 2.29 gives examples of hearing verbs from several Oceanic languages. Those which are Undergoer subject forms are listed under (i) and those which are Actor subject forms are listed under (ii). All the verbs here are reflexes

of Proto Oceanic **loŋoR* and **loŋoR-i-*, but from these reflexes it is not clear whether these forms Proto Oceanic intransitive verb **loŋoR* was an Actor subject verb meaning 'to hear', like in Manam, Longgu and Lau, or whether it was an Undergoer subject verb meaning 'to be heard', like in Boumaa Fijian, Wayan Fijian and Tongan. Non-Oceanic cognates of Proto Oceanic **loŋoR* in three Philippine languages show a similar situation to the Oceanic reflexes. In Tagalog the unmarked form, *díníg*, occurs as a noun denoting the thing heard. With the prefix *ma-* this verb can have two meanings, *ma-dinig* 'be heard' and *ma-rinig* 'to hear'[21]. When marked with *-in* (*dingg-in*) it has the meaning 'to listen to'(Ramos 1971, English 1977, Andrew Pawley pers.comm.). In Cebuano-Visayan the unmarked form *dungóg* has the meaning 'to hear' and a stimulus subject meaning is derived with the prefix *ma-*, *ma-dungog* 'to be audible' (Yap & Bunye 1971 and Cabonce 1983). In Ilocano there is no unmarked form, nor apparently any stimulus subject-type form (Rubino 2000). On the basis of both Oceanic and non-Oceanic languages it is not clear whether Proto Oceanic **loŋoR* took the experiencer or the stimulus participant expressed as S. It is of course possible that it had both types of meanings.

[21] Chapter 7 looks at Proto Oceanic **ma-* and gives a brief summary of the uses of its cognates in non-Oceanic languages.

Table 2.29: Verbs of hearing

intransitive		transitive	
(i) Undergoer subject forms			
Boumaa Fijian			
rogo	*be heard*	rogo-ca	*hear sth*
Wayan Fijian			
rogo	*be heard*	rogo-	*hear sth*
Tongan			
ongo	*sound, be heard*	ongo-'i	*hear sth*
Samoan			
logo	*be perceived by hearing*	fa'a-logo	*hear sth, listen to sth*
(ii) Actor subject verbs			
Manam			
loŋo	*hear*	loŋo-r-	*hear sth/s.o.*
Longgu			
roŋo	*hear, ask*	roŋo-ni-	*hear sth*
Lau			
rongo	*hear, listen*	rongo-a	*hear, listen to sth*

(data from Dixon 1988, Pawley & Sayaba n.d., Churchward 1959, Fox 1974, Milner 1966, Lichtenberk 1983, Hill 1992, Fox 1974)

A similar situation occurs with verbs of seeing. Table 2.30 gives examples of seeing verbs from a number of Oceanic languages. As can be seen the majority of such forms are Actor subject verbs with the experiencer expressed as the intransitive S and transitive A and the stimulus expressed as the transitive O. However, with the form that is reconstructable for Proto Oceanic, **kita-i-*' 'to see sth', there is Oceanic data supporting both an intransitive form with an experiencer subject, as Motu *ita* 'to see', and an intransitive form with a stimulus subject, as Tongan *kite* 'to be in sight'[22]. Again the non-Oceanic cognates show the same situation. The cognate form in Tagalog is *kita* 'be visible' with a stimulus subject meaning. There is also a derived form *má-kíta* meaning 'to see sth/s.o.' (Ramos 1971 and English 1977). In Cebuano-Visayan the unmarked form *kità* has an experiencer subject meaning 'to see', and there is a derived form *ma-kità* which has a stimulus subject meaning of 'to be visible'. In Ilocano the unmarked form *kita* is a noun meaning 'kind, appearance', and there is a derived form

[22] See Appendix B for a more complete cognate set of Proto Oceanic **kita-* 'to see sth'

k<um>ita 'to see, look'. Ilocano also has a form *ma-kita* which has a verbal meaning 'to see, notice', and an adjectival meaning 'able to be seen' (Rubino 2000). As with Proto Oceanic **loŋoʀ* 'be audible/to hear', it is not clear whether Proto Oceanic **kita* was Undergoer subject or Actor subject. Again it is possible that **kita* had both the meanings 'be visible' and 'to see'. The range of other seeing verbs in Oceanic languages that are Actor subject forms suggests that other seeing verbs in Proto Oceanic were Actor subject forms.

Table 2.30: Verbs of seeing

intransitive		transitive	
(i) Undergoer subject verbs			
Chuuk			
kúna-[23]	*be seen, found*	kúna	*see, behold, find sth*
Woleaian			
ling	*appear, loom up*	ga-linga	*to watch, spot sth*
Tongan			
kite	*be in sight, appear*	kite-'i	*to dream, have an idea*
(ii) Actor subject verbs			
Motu			
ita	*see, look*	ita-i-	*look at sth*
Saliba			
kaikewa	*stare, look*	kaikewa-i-	*stare at sth*
Longgu			
bere	*see look*	bere-ŋi-	*see sth*
bubu	*look, watch, gaze*	bubu-ŋi-	*look at sth, watch sth*
Kwaio			
lia	*see, look*	lia-si-	*see sth*
lio	*look*	lio-si-	*see, divine, find sth*
Carolinian			
piipi	*look, watch*	piipii-	*look for sth, watch sth*
Woleaian			
weri	*see, observe*	weri-	*see sth*

[23] This form is only found in compounds (Goodenough & Sugita 1980: 182)

Table 2.30 (cont)

intransitive		transitive	
Boumaa Fijian			
rai	*see, look*	rai-ca	*see, look at sth*
Wayan Fijian			
ligo	*look, see*	ligo-ci-	*see sth*
tidro	*look, peer, watch*	tidro-vi-	*look/peer at sth*
tola	*see, look*	tola-vi-	*see sth*

(data from Goodenough & Sugita 1980 & 1990, Sohn & Tawerilmang 1976, Churchward 1959, Lister-Turner & Clark 1954, Margetts 1999, Hill n.d.-b, Keesing 1975, Jackson & Marck 1991, Dixon 1988, Pawley & Sayaba n.d.)

Table 2.31 gives examples of verbs of smelling in several Oceanic languages. It seems to be more common for such verbs to behave as Undergoer subject forms. Saliba (PT) *pane* 'smell' is one form which behaves in this way, as can be seen from (38) and (39) below, where the stimulus is expressed as intransitive S argument and the transitive O argument, while the experiencer is expressed as A.

38) **[pasa]**$_S$ ye-pane
flower 3sg-smell
The flower smells.

(Margetts 1999: 153)

39) **[pasa]**$_O$ [ye]$_A$-pane-i-Ø
flower 3sg-smell-APP-3sg.O
He smelled the flower[24].

(Margetts 1999: 153)

[24] Saliba *-i* is glossed consistently as APP(licative), following Margetts (1999), even though it has a causative use with some verbs.

Table 2.31: Verbs of smelling

intransitive		transitive	
(i) Undergoer subject forms			
Saliba			
pane	*smell, emit smell*	pane-i-	*smell sth*
Longgu			
si'ini	*smell bad*	si'ini-	*smell sth*
Kwaio			
moko	*smell, stink*	moko-fi-	*smell sth*
Boumaa Fijian			
boi	*emit a smell*	boi-ca	*smell sth*
Wayan Fijian			
garu[25]	*smell, have an odour*	garu-ti-	*smell sth*
Tongan			
namu	*emit a smell, odour*	nāmu-'i	*smell sth*
(ii) Actor subject forms			
Bauan Fijian			
boi	*have a smell*	boi-ca	*smell of sth*
bona	*stink (rotten)*	bona-ca	*stink of sth*
Wayan Fijian			
mara	*smell bad, be smelly*	mara-ti-	*affect s.o. by smell*

(data from Margetts 1999, Hill n.d.-b, Keesing 1975, Dixon 1988, Pawley & Sayaba n.d., Churchward 1959, Sohn & Tawerilmang 1976 and Capell 1968)

There are two languages, Bauan and Wayan Fijian, which have smelling verbs that are Actor subject forms. The intransitive forms of these verbs are like those in other languages in that the stimulus is expressed as S. However, the transitive forms behave differently. The two Bauan transitive forms, occur with the stimulus expressed as A and the type of smell expressed as O. The Wayan transitive form takes the type of smell as the A argument and the experiencer as the O argument, as shown by (40). Actor subject-type smelling verbs to my knowledge do not occur outside of Fijian languages, and in these languages behave in different ways. Such forms are taken to be innovations. Proto Oceanic probably behaved in the same way as the majority of modern Oceanic

[25] The form *garu* occurs with a modifier (Pawley & Sayaba n.d).

languages, whereby smelling verbs were Undergoer subject forms. This is also supported by the fact that these Fijian forms behave like the forms in other languages in their intransitive forms, that is, the stimulus is expressed as S.

40) a mara-tī [koya]$_O$ [ne igaru ni gwata]$_A$
3sg:NONFUT smell.bad-TR 3sg CN scent GEN snake
i na le-a rusu i were
PREP CN POSS-3sg enter into house
When he entered the house, the smell of a snake affected him.
(Pawley & Sayaba n.d.; gloss mine)

Table 2.32 gives examples of verbs of tasting. Many such verbs in Oceanic languages are Actor subject. This is not unexpected since often they also have the meaning of 'to try'. With these verbs the experiencer is expressed as intransitive S and transitive A, and the stimulus as transitive O. The two forms in Patpatar (MM) and Tongan (Pn) which behave as Undergoer subject verbs have property-type meanings in their intransitive forms, that is, they denote the property of an object, expressed as S, just like the other property term taste verbs with meanings such as 'sour', 'sweet' or 'bitter'. One verb which behaves differently from the others is the Wayan Fijian form *masamasā* 'be sharp in taste (of drink), taste unpleasant (of food)'. This verb occurs in (41) and (42) below. When used intransitively it behaves like a property term taste verb with the stimulus expressed as S. However, when used transitively the A argument corresponds with the S argument and the experiencer is expressed as O, thus *masamasā-ti-* 'to taste sharp/unpleasant to s.o.'. This verb seems to behave in a similar way to the Wayan form *mara* 'smell bad'. Again forms behaving in the same way have not been found elsewhere in Oceanic and the Wayan form is taken to be an innovation. Thus Wayan seems to have undergone a change whereby the experiencer of some perception verbs (smelling and tasting in particular) can be expressed as O.

41) ei som masamasā vinā dū [**na waini kwē**]$_S$
3sg:NONPAST drink sharp.taste be.good very.much CN wine this
This wine has a nice dry taste.
(Pawley & Sayaba n.d.; gloss mine)

42) ei kani masamasā-ti [au]$_O$ [**na saraucivi**]$_A$
3sg:NONPAST eat sharp.taste-TR 1sg CN wild.yam
Wild yam tastes unpleasant to me.
(Pawley & Sayaba n.d.; gloss mine)

A reasonable hypothesis concerning Proto Oceanic is that verbs of tasting which also had the meaning of 'try' were Actor subject forms, while verbs of tasting which denoted particular types of tastes were property terms and therefore Undergoer subject verbs.

Table 2.32: Verbs of tasting

intransitive		transitive	
(i) Undergoer subject forms			
Patpatar			
nam-namien	*be tasty*	namien	*taste sth*
Tongan			
ifo	*be tasty*	ifo-'ia	*find sth tasty*
(ii) Actor subject forms			
Longgu			
nami-nami	*taste*	nami-	*taste sth*
Woleaian			
na-na	*taste, try taste of*	na-ri-	*taste, try sth*
Mokilese			
jong-jong	*taste, try*	jong	*taste, try sth*
Wayan Fijian			
masamasā	*be sharp in taste*	masa-masā-ti-	*taste unpleasant to s.o.*

(data from Condra n.d., Churchward 1959, Hill n.d.-b, Sohn & Tawerilmang 1976 and Harrison & Albert 1977)

2.3.4.3 EMOTION VERBS

Many emotion verbs occur as Actor subject verbs, with which the experiencer is expressed as the S argument of the intransitive clause and the A argument of the transitive clause, and the stimulus is expressed as transitive O. This is demonstrated by (43) and (44) from Wayan Fijian.

43) sā borisi dū [o Vikita]$_S$
PERF be.angry very PN V.
Victor got very angry.

(Pawley & Sayaba n.d.; gloss mine)

44) ei alo mālua o koya,
3sg:NONPAST nature gentle PN 3sg
[ei]$_A$ tam dau borisi-tī-[au]$_O$
3sg:NONPAST NEG HAB be.angry-TR-1sg
He is good tempered, he doesn't get angry with me.

(Pawley & Sayaba n.d.; gloss mine)

Examples of other emotion verbs, in several Oceanic languages, that behave in the same way as Wayan *borisi* 'be angry' are given under (ii) in Table 2.33. In some languages there are emotion verbs which are Undergoer subject forms. As mentioned earlier, with Undergoer subject emotion verbs the experiencer is expressed as the intransitive S argument and the transitive O argument and the stimulus is expressed as the transitive A argument. This was demonstrated with Wayan Fijian *kino* 'be ashamed, feel remorse' in (34) and (35) above. Examples (45) and (46) below show the same type of relationship with the Saliba verb *matausi* 'be scared'. Verbs behaving in this way often take the causative prefix in their transitive form. Other forms which behave in this way are given under (i) in Table 2.33.

45) [**se**]$_S$-matausi
3pl-scared
They are scared.

(Margetts 1999: 165)

46) [ya]$_A$-he-matausi-[**di**]$_O$
1sg-CAUS-scared-3pl.O/P
I scared them.

(Margetts 1999: 165)

Table 2.33: Emotion verbs

intransitive		transitive	
(i) Undergoer subject forms			
Saliba			
matausi	*be scared*	he-matausi-	*scare s.o.*
Woleaian			
booboo	*be frightened, surprised*	ga-booboo-	*frighten s.o.*
kere	*be happy*	ga-kere-	*make s.o. happy*
ngolo	*be jealous*	ga-ngolo	*to make s.o. jealous*
ssong	*be angry, mad*	ga-ssonga-	*make s.o. angry, tease*
siga	*be mad, angry*	ga-sige-	*make s.o. angry, mad*
Wayan Fijian			
kino	*be ashamed*	kino-ci-	*cause s.o. to feel shame*
(ii) Actor subject forms			
Saliba			
mwadine	*be shy*	mwadine-i-	*be shy of s.o.*
Woleaian			
metagiu	*be afraid*	metagiu	*be scared of, fear s.o.*
Tinrin			
barra	*be afraid*	barri	*afraid of s.o.*
Boumaa Fijian			
garo	*want, desire*	garo-va	*want, desire sth*
pu'u	*be angry*	pu'u-ca	*be angry at s.o./sth*
Wayan Fijian			
borisi	*be angry, cross*	borisi-ti-	*be angry with s.o.*
gudru	*feel angry*	gudru-ti-	*be angry with s.o.*
kokosi	*be jealous*	kokosi-ti-	*be jealous of s.o.*
kino	*be ashamed*	kino-ci-	*be ashamed by/for s.o.*
mataku	*be afraid, fearful*	mataku-ci-	*be afraid of sth*

(data from Lister-Turner & Clark 1954, Margetts 1999, Pawley & Sayaba n.d., Lichtenberk 1983, Ezard 1997, Keesing 1975, Jauncey 1997, Osumi 1995, Dixon 1988)

An emotion verb which is clearly reconstructable for Proto Oceanic is **matakut* 'be afraid'. Table 2.34 gives cognates of this form and its transitive derivatives.

Table 2.34: Proto Oceanic **matakut* 'be afraid'

	POc	***matakut**	*be afraid*
		***matakut-i-**	*be afraid of*
		***pa[ka]-matakut-i-**	*frighten*
NNG:	Mangap-Mbula	-moto	*be afraid, fear*
		-pa-moto	*frighten, make afraid*
	Poeng	matau	*fear (intr.)*
		matau-e	*fear (tr.)*
		pa-matau	*frighten*
	Manam	mataʔu	*be afraid*
		mataʔu-r-	*fear*
PT:	Gumawana	matoita	*be afraid (tr./intr.)*
		matoite	*be afraid of (tr.)*
	Tawala	-matouta	*be afraid*
		-matout-e-	*fear sth/s.o.*
	Iduna	matauta	*fear (intr.)*
		mata-matau-hi	*fear (tr.)*
	Saliba	matausi	*be scared*
		he-matausi-	*scare s.o.*
MM:	Maringe	mʰaɣu	*be frightened (by) (tr./intr.)*
		fa-mʰa-mʰaɣu	*frighten, scare (tr.)*
SES:	Gela	mataɣu	*to fear, be afraid*
		mataɣu-ni-	*to be afraid of*
	Tolo	matahu	*frightened, scared*
		matahu-ni-	*to fear, be afraid of*
	Longgu	ma'u	*to be frightened*
		ma'u-ni-	*to be frightened of*
		va'a-ma'u-	*to frighten*
	Kwaio	ma'u	*afraid, shy*
		ma'u-ni-	*be afraid of*
		fa'a-ma'u-	*frighten*
	Arosi	maa'u	*to fear*
		maa'u-si-	*to fear (tr.)*

Table 2.34 (cont)

SO:	Tamambo	mataxu	*feel scared*
		matau-xi	*fear sth*
	Paamese	metau	*afraid (intr.)*
		metau-ni	*fear, afraid of (tr.)*
	Anejom̃	emataɣ	*fear (intr)*
		emitita-ñ	*fear sth*
	Erromangan	emetet	*fear (intr)*
		emtit-oŋi	*fear sth*
Mic.:	Carolinian	mesaɣu	*have fear, be afraid*
		mesaɣu-a	*fear sth, be afraid of*
Fij.:	Wayan	mataku	*be afraid, scared*
		mataku-ci-	*fear sth be afraid of*
		vaka-mataku-ci-	*frighten s.o.*
Pn:	Samoan	mata'u	*fear, hold in awe*
		mata'u-tia	*be fearful*
		fa'a-mata'u	*frighten, threaten*

Two transitive forms are reconstructed for Proto Oceanic: one with the transitive suffix **-i* with the experiencer expressed as A and the stimulus as O[26]; and one with the causative prefix **pa[ka]-* which took the stimulus as A and the experiencer as O. With the intransitive form **matakut* 'be afraid' the S argument expressed the experiencer participant. Thus in Proto Oceanic **matakut* 'be afraid' was an Actor subject verb with which the intransitive S and transitive A corresponded, both expressing the experiencer participant. This verb could also occur with the causative prefix **pa[ka]-*, allowing the stimulus participant to be expressed as A and the experiencer as O.

In Longgu, a language which reflects both transitive forms, the difference between them is in the type of stimulus participant that can occur. The form with the causative prefix, *va'a-ma'u-* 'to frighten', takes an animate stimulus as A, as in (47), whereas the form with the transitive suffix, *ma'u-ni-* 'be frightened of', can take either

[26] This form is reflected with the "correct" thematic consonant in Papuan Tip languages and in Samoan. The forms with **-i* in other languages, like Wayan Fijian and the Southeast Solomonic languages, have innovative thematic consonants.

an animate or inanimate stimulus participant expressed as O, as shown in (48) (Hill 1992: 66-67)[27].

47) [mwane]$_A$ e va'a-ma'u-a [mwela-i]$_O$
man 3sg CAUS-frightened-3sg child-SG
The man frightened the child.

(Hill 1992: 67)

48) [mwela-i]$_A$ e ma'u-ni-a [pilazia / mwane]$_O$
child-SG 3sg frightened-TR-3sg lightning / man
The child is frightened of the lightning / the man.

(Hill 1992: 66)

It is possible that a similar distinction to Longgu occurred with the Proto Oceanic forms. As mentioned in section 2.3.4, Croft (1991: 214-219) describes the structure of events or states denoted by emotion verbs as involving two processes: (i) the experiencer paying attention to the stimulus; and (ii) the stimulus causing the experiencer to be in, or enter into, the mental state. It is likely that the form **pa[ka]-matakut-i-* 'to frighten' was used when the second process, the stimulus causing the mental state, was considered more prominent in the situation denoted. In such situations the stimulus is likely to have been an animate participant that had some control over the situation, and was expressed as A, while the experiencer was expressed as O. The form **matakut-i-* may have been used when the first process, the experiencer paying attention to the stimulus, was considered more prominent in the situation and the experiencer was expressed as A and the stimulus as O. With this form of the verb there would not necessarily have been any tendency for the stimulus to have been animate. Figure 2.2 demonstrates what may have been the usage of Proto Oceanic **matakut-i-* 'be afraid of' and **pa[ka]-matakut-i-* 'to frighten'[28].

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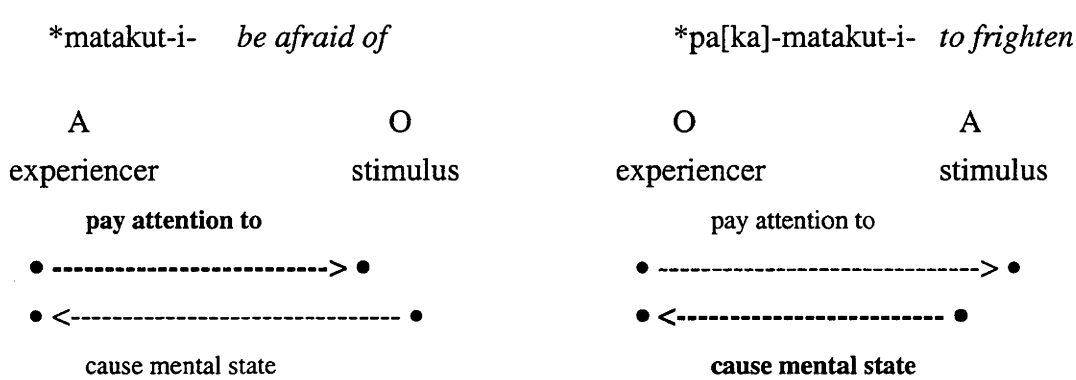
[27] In Longgu the causative prefix can also be attached to the transitive verb *ma'u-ni-* 'to frighten', and this rearranges the valency whereby the experiencer, the original A, becomes the O, and the stimulus, the original O, becomes the A. This form of the verb is only used when the stimulus is inanimate, as in (b).

b) [pilazia]$_A$ e va'a-ma'u-ni-a [mwela-i]$_O$
lightning 3sg CAUS-frightened-TR-3sg child-SG
The lightning frightened the child.

(Hill 1992: 66)

[28] The possible difference between Proto Oceanic **matakut-i-* 'be afraid of' and **pa[ka]-matakut-i-* 'to frighten' in terms of the animacy of the stimulus participant is, at this stage, speculative. While the Longgu reflexes support such an analysis, I have, as yet, found no other evidence from modern Oceanic languages which supports it.

Figure 2.2: Possible structure of Proto Oceanic **matakut-i-* and **pa[ka]-matakut-i-*



But what of emotion verbs in general in Proto Oceanic? The sample of modern languages in Table 2.33 suggest that these are consistently Actor subject verbs, and it is likely that this was also the case in Proto Oceanic. It is possible that other emotion verbs behaved like **matakut* 'be afraid', occurring with two transitive forms. However, more detailed lexical data and reconstructions are needed to determine this.

In summary, verbs taking experiencer and stimulus roles in Proto Oceanic behaved in several ways. Cognition verbs were clearly Actor subject, with which the experiencer was expressed as intransitive S and transitive A and the stimulus as O. Perception verbs did not form a coherent class grammatically. It is unclear whether the hearing verb **loŋoR* and the seeing verb **kita* were Undergoer subject or Actor subject verbs or both in Proto Oceanic. The modern Oceanic languages suggest that other verbs of seeing may have taken an Actor subject with which the experiencer was expressed as S and A and the stimulus as O. Verbs of smelling were probably consistently Undergoer subject. Verbs of tasting were split between the two groups. Those which also had the meaning of 'to try' were Actor subject forms and those which denoted the property of an object were Undergoer subject forms. It seems probable that emotion verbs in Proto Oceanic were Actor subject forms, with the experiencer expressed as intransitive S and transitive A, and the stimulus as O. This type of verb may also have taken the causative prefix **pa[ka]-* to allow the stimulus to be expressed as A and the experiencer as O.

2.3.5 DEAD AND ALIVE

Two verbs which are best considered separately are **mate* 'die, be dead' and **maqurip* 'live, be alive'. As described in section 2.2.3 for the Longgu and Tolo reflexes of **mate* die, be dead', reflexes of these verbs are classified differently in different languages. In some languages the reflexes of these verbs behave as Actor subject verbs and in others as Undergoer subject verbs. The question to be examined here is how these verbs were classified in Proto Oceanic.

Table 2.35 gives reflexes and their transitive derivatives of Proto Oceanic **mate* 'die, be dead'.

Table 2.35: Proto Oceanic **mate* 'die, de dead'

	POc	***mate**	*die, be dead*
		***pa[ka]-mate-**	*cause to die, kill*
NNG:	Mangap-Mbula	-metmeete	*about to die (of trees)*
		-pa-memeete	*make unconcious*
PT:	Motu	mase	*to die*
		ha-mase-	*cause to die, kill*
MM:	Hoava	mate	*be dead*
		va-mate-	*kill*
		mate-ni-	*die from/of*
SES:	Gela	mate	*unconcious, dead*
		mate-a	*kill, extinguish*
	Tolo	mate	*die, be dead*
		mate-a	*extinguish, turn off*
	Longgu	mae	*die, be dead*
		va'a-mae-	*kill*
		mae-si-	*to die of*
	Lau	mae	*die, be dead*
		mae-li-	*kill, cause death*
		mae-si-	*to die of*

Table 2.35 (cont)

	Kwaio	mae	*die, be dead, comatose*
		fa'a-mae-	*cause to be dead*
		mae-ri-	*die as a result of*
	Arosi	mae	*die*
		ha'a-mae-si-	*kill*
		mae-si	*die from; kill*
SO:	N-E Ambae	mate	*die, be dead*
		vaka-mate	*make s.o./sth die*
Fij:	Boumaa Fijian	mate	*die*
		va'a-mate-	*make dead, kill*
	Wayan Fijian	mate	*die, be dead*
		vaka-mate-	*kill, put to death*
Pn:	Samoan	mate	*die*
		fa'a-mate	*kill (animal), put out (fire)*
Pn:	East Futunan	mate	*mourir*
		faka-mate	*se suicider; être anesthésié; hypnotiser (serpent)*

Most Oceanic languages have an unmarked intransitive form and a transitive form with the causative prefix. Examples (49) and (50) illustrate this with the North-East Ambae reflex of **mate*. In (49) the verb *mate* 'die, be dead' occurs intransitively and the experiencer is expressed as S. In (50) this verb occurs transitively with the causative prefix and the experiencer is expressed as O and a causer participant expressed as A.

49) mo lehe [**ra**]$_S$=u mate dolegi.
RL see 3NSGS=TEL dead all
He saw that they were all dead.

(Hyslop 1998: 348)

50) ɑle [go]$_A$=vaga-mate [**na avi-gi**]$_O$...
so 2SGS=CAUS-die ACC fire-ASS
Then put out the fire...

(Hyslop 1998: 348)

Reflexes of **mate* in other languages, including Mangap-Mbula, Motu, Boumaa Fijian, Wayan Fijian and Samoan behave in the same way. That is, the intransitive forms occur

with the experiencer expressed as S and the transitive forms with the causative prefix occur with the experiencer expressed as O. Examples (51) and (52) from Wayan Fijian also demonstrate this.

51) sā mate [**o Viliame**]$_S$
PERF be.dead PN V
Viliame has died.

(Pawley & Sayaba n.d.; gloss mine)

52) a vaka-mate-ni-[**a**]$_O$ [na niumōnia]$_A$
3sg:NONFUT CAUS-be.dead-TR-3sg CN pneumonia
Pneumonia killed him.

(Pawley & Sayaba n.d.; gloss mine)

Clearly reconstructable for Proto Oceanic are two forms: an intransitive one, **mate* 'die, be dead'; and a transitive one with the causative prefix, **pa[ka]-mate-* 'cause to die, kill'. Thus in Proto Oceanic (as in the modern languages just mentioned) **mate* 'die, be dead' was a U-stative verb. That is, it was an Undergoer subject verb with a transitive form derived with the causative prefix.

However, as mentioned there are also reflexes of **mate* which are Actor subject verbs. In a number of Southeast Solomonic languages reflexes of **mate* 'die, be dead' have transitive derivatives with the transitive suffix and the relationship between the intransitive and transitive forms is one in which the intransitive S and transitive A arguments correspond. This was shown by examples (18) and (19) from Longgu above, repeated below.

53) [**geni**]$_S$ e mae na
woman 3sg die PERF
The woman is dead.

(Hill 1992: 64)

54) [**e**]$_A$ mae-si-a [malaria-i]$_O$
3sg die-TR-3sg malaria-SG
He/she died of malaria.

(Hill 1992: 66)

Reflexes of **mate* 'die, be dead' with the transitive suffix and/or object enclitics appear to be innovations of Southeast Solomonic languages. In Gela and Tolo the reflexes of **mate* 'die, be dead' are Undergoer subject verbs with which the S and O arguments correspond (see (20) and (21) above). In these languages the reflexes of **mate* appear to have shifted from one morphological class of Undergoer subject verbs to the other, that is, from being transitivised with the causative prefix (U-stative verbs) to being transitivised with the transitive suffix and/or object suffixes (U-process verbs). In Longgu, Lau, Kwaio and Arosi reflexes of **mate* are Actor subject verbs, each language having an intransitive form that takes the experiencer participant as S and a transitive form that takes the experiencer participant as A and the cause of death as O. Examples (53) and (54) from Longgu demonstrate this. A form **mae-si-* 'to die from/of'[29] is reconstructable for Proto Cristobal-Malatian, the ancestor language of Longgu, Lau, Kwaio and Arosi and it appears that at this stage **mae* 'die, be dead' was reanalysed as an Actor subject verb. In Lau and Arosi the reflexes of **mate* 'die, be dead' are polysemous being both Actor subject and Undergoer subject verbs.

Another language that has a reflex of **mate* which is an Actor subject verb is Hoava, which has an intransitive form *mate* 'die, be dead' and a transitive form *mate-ni-* 'to die of/from'[30]. However, the applicative suffix *-ni* is not a reflex of **-i*, but rather seems to be a reduced reflex of Proto Oceanic **akin[i]*, and this Hoava form is taken to be an innovation independent of that in the Cristobal-Malaitan languages.

Proto Oceanic **maqurip* 'live, be alive' behaved in a very similar way to **mate* 'die, be dead'. That is, it was an Undergoer subject verb which took the causative prefix. Table 2.36 gives reflexes and their transitive derivatives of this form, and from these it seems possible to reconstruct both the intransitive form and a transitive form with the causative prefix, **pa[ka]-maqurip-i-* 'make alive, revive'[31]. The intransitive form took an experiencer participant as S and the transitive form took the experiencer participant as O and a causer participant as A. Again in several Cristobal-Malaitan languages there are forms with the transitive suffix which take the experiencer

[29] Proto Cristobal-Malaitan lost Proto Oceanic **t*, hence the reconstruction of the form **mae*. Also of note is that Kwaio shows an innovative consonant. Under this hypothesis the Kwaio form must represent a later development.

[30] The gloss of this form is my own. Davis (1997: 235-238) lists *mate* as a verb which takes both the causative prefix and the applicative suffix, but does not give a gloss for *mate-ni-*.

[31] A form of this verb with the causative prefix is reconstructed for Proto Central/Eastern Oceanic by Pawley (1972: 39).

participant as A and the thing which may have, but did not, end life as O. These forms are taken to be another Proto Cristobal-Malaitan innovation, parallel to that which occurred with **mate* 'die, be dead'.

Table 2.36: Proto Oceanic **maqurip* 'live, be alive'

	POc	***maqurip**	*live, be alive*
		***pa[ka]-maqurip-i-**	*cause to live, revive*
NNG:	Poeng	mauli	*alive, have life*
		pa-mauli	*cause life*
SES:	Lau	mouri	*be alive*
		mouri-si-	*to survive, escape alive from*
	Kwaio	moori	*be alive*
		fa'a-moori-	*revive, cure*
		moori-si-	*survive death because of*
	Arosi	mauri	*live, flourish*
		mauri-si-	*in good health from*
		ha'a-mauri	*to make flourish*
Mic.:	Woleaian	maiuriu	*fresh, green*
		ge-mairuiu	*make it green*
Pn:	Tongan	mo'ui	*live, be alive, in health*
		faka-mo'ui	*cause to live, give life to, restore to health*
Pn:	East Futunan	ma'uli	*vivre, vivant*
		faka-ma'uli	*sauver; guérir*

In Proto Cristobal-Malaitan the reflexes of **mate* 'die, be dead' and **maqurip* 'live, be alive' both developed transitive forms with **-i* which took a cause as the O argument. The result was that these verbs came to resemble **matakut* 'be afraid' and perhaps also other emotion verbs. The motivation for such a change may have been the similar semantic structures of **mate*, **maqurip* and **matakut* and their reflexes, all three having an experiencer who is in or enters into the state denoted by the verb; and a stimulus or cause of the situation. Intransitively these three verbs behaved alike in Proto Oceanic, with the experiencer expressed as the S argument. They also had a transitive form with the causative prefix **pa[ka]-*, with which the experiencer was expressed as O and the stimulus or cause as A. With **mate* 'die, be dead' and **maqurip* 'live, be alive'

the **pa[ka]-* transitive was apparently the only transitive form, whereas **matakut* 'be afraid' could also be transitivised with the transitive suffix **-i* and/or the object enclitics, with which the experiencer was expressed as A and the cause or stimulus as O.

In the previous section it was suggested that each of the transitive forms of **matakut* 'be afraid' may have been used to denote different types of situations. When used with **pa[ka]-* the stimulus or cause may have been an animate participant that was instrumental in bringing about the event or state. When used with **-i* and/or the object enclitics the stimulus may have been either animate or inanimate participants that were not considered to have a great deal of control over the situation. The reflexes of **mate* 'die, be dead' and **maqurip* 'live, be alive' in Proto Cristobal-Malaitan may have developed parallel forms with **-i* so that an inanimate cause could be expressed as O, rather than A. Thus in Longgu the reflex of **mate* with the transitive suffix, *mae-si-* 'to die of' can take only an inanimate cause, as in (54) above. If the cause is an animate participant then the form with the causative prefix, *va'a-mae-* 'to kill', is used, as in (55).

55) [te mwane]$_A$ e va'a-mae-a [geni]$_O$
one man 3sg CAUS-die-3sg woman
A man killed the woman.

(Hill 1992: 64)

2.3.6 VALENCY-DECREASING DEVICES

The discussion so far has concentrated on classes of verbs determined by the valency-increasing devices with which they occur, that is, verbs which have unmarked intransitive forms and transitive forms marked with either the causative prefix or the transitive suffix and/or object suffixes. Most verbs in modern Oceanic languages fall into these classes, and presumably the same was true of Proto Oceanic. However, at least three valency-decreasing devices are reconstructable for Proto Oceanic: reduplication; and the prefixes **ma-* and **ta-*. So how did verbs which had transitive forms with **-i* and/or the object enclitics and intransitive forms derived by reduplication or with **ma-* or **ta-* fit into the system of verb classes?

2.3.6.1 REDUPLICATION

In a number of Oceanic languages the intransitive form of a verb is reduplicated. For example, in North-East Ambae some transitive verbs are reduplicated to form intransitives, and the transitive A argument corresponds to the intransitive S argument. An argument corresponding to the transitive O cannot be mentioned in the intransitive clause (Hyslop 1998: 327). Examples (56) and (57) from North-East Ambae demonstrate this function. The transitive form of the verb *gahi* 'weed' occurs in (56). In (57) this verb occurs in its reduplicated intransitive form, and as can be seen the A and S arguments correspond, both expressing the agent participant.

56) [ra]$_A$=mo gahi [na talu-re]$_O$
3NSGS=RL weed ACC garden-3NSGP
They are weeding/weeded their garden

(Hyslop 1998: 356)

57) [ra]$_S$=mo gahi-gehi
3NSGS=RL REDUP-weed
They are weeding/weeded

(Hyslop 1998: 356)

This same function of reduplication is found in Motu, Longgu, Paamese and Tamambo (SO), Woleaian and Ponapean (Mic.) and Wayan Fijian. Table 2.37 gives examples of verbs which have reduplicated intransitive forms from a number of languages. With all the verbs listed here the detransitivising derivation is one with which the transitive A argument corresponds with the intransitive S argument.

Table 2.37: Reduplicated intransitive forms

transitive		reduplicated intransitive	
Motu			
dadi-	*to snatch sth*	dadi-dadi	*pillage*
ɣuri-	*to pray to s.o.*	ɣuri-ɣuri	*pray*
nua-i-	*to grub roots up (as a pig)*	nua-nua	*grovel (as a pig)*
turi-	*to sew sth*	turi-turi	*sew*
Longgu			
ale-	*bite sth*	ale-ale	*bite*
alo-	*to beckon s.o.*	alo-alo	*wave*
'a'o-	*pull in a fish*	'a'o-'a'o	*fish*
dave-	*to carve sth*	dave-dave	*carve*
'isi-	*to swear at s.o.*	'isi-'isi	*swear*
Tamambo			
biri-	*grate sth*	biri-mbiri	*grate*
lavo-	*plant sth*	lavo-lavo	*plant*
sari-	*spear sth*	sari-sari	*spear*
sau-	*hook a fish*	sau-sau	*go fishing*
tevi-	*sweep sth*	tevi-tevi	*sweep*
tovi-	*call s.o.*	tovi-tovi	*call out*
Woleaian			
fiya-	*squeeze sth*	fiye-fiya	*squeeze*
fili-	*choose sth*	f-fil	*choose*
faiu-	*weave sth*	faiu-feiu	*weave*
mangi-	*to remember sth*	mangi-mangi	*remember*
touu-	*spear sth*	tou-tou	*spear*
fato-gi-	*write sth*	fato-fato	*write*
file-ti-	*stir sth*	file-fila	*stir*
Wayan Fijian			
talo-ci-	*ladle, scoop sth*	talo-talo	*ladle, scoop*
tuva-ni-	*arrange, set out, sort sth*	tuva-tuva	*arrange, set out*

(data from Lister-Turner & Clark 1954, Hill 1992: 47, Jauncey 1997: 154, Sohn 1975: 130-133 and Pawley & Sayaba n.d.)

In one language, Longgu, there are a few transitive forms which have reduplicated intransitives with which the transitive O argument and the intransitive S argument correspond, as shown by the forms listed below:

'ave-a	*bend it*	'ave-'ave	*be bent*
biru-a	*twist it*	biru-biru	*be twisted*
lumi-a	*dip it*	lu-lumi	*to sink*
pili-a	*roll it*	pi-pili	*to roll*

(Hill 1992: 47)

As this function of detransitivising reduplication is, so far as I know, found in only one language, and other languages consistently show the other type of detransitivising function, with which the A and S arguments correspond, I have taken these Longgu examples to be innovations.

Proto Oceanic probably had a group of verbs which had transitive forms marked by **-i* and/or the object enclitics and reduplicated intransitive forms. These forms were Actor subject verbs, with which the transitive A and the intransitive S arguments corresponded. As well as the above evidence from modern languages, this hypothesis is also supported by the reconstruction of a verb with such a derivational pattern. These are the forms **kani-* 'to eat sth', which was transitive and took the object enclitics directly, and **kani-kani* 'to eat', which was intransitive. Table 2.38 gives the cognate sets for these forms. From the verbs in modern languages presented in Table 2.37 full reduplication seems to be the more common pattern. However, more research is needed to determine if all such forms were fully reduplicated in Proto Oceanic, and indeed how many forms actually behaved in this way[32].

Blust (1977a) presents another paradigm of Proto Oceanic verbs comprising a reduplicated intransitive, a non-reduplicated transitive form withh **-i* and a reduplicated transitive with **-i*. This paradigm is described in Chapter 3, section 3.3.1.1.

[32] Most of the modern forms in Table 2.38 which have reduplicated intransitive forms have transitive forms which take the object enclitics directly and it is possible that this derivation originally occurred with just such verbs. This would provide a neat explanation of the Longgu Undergoer subject verbs that have reduplicated intransitive forms. That is, the original restriction to Actor subject verbs has been lost and the restriction to verbs which took the object enclitics directly has been extended to some Undergoer subject verbs. This, however, is speculation and a more detailed study of detransitivising reduplication is needed before any claims about the types of verbs in this class can be made.

Table 2.38: Cognate sets for **kani-* 'eat sth' and **kani-kani* 'eat'

	POc	***kani-**	*eat sth*	***kani-kani**	*eat*
NNG:	Manam	ʔan-	*eat sth*	_	
PT:	Sinaugoro	ɣani-	*eat sth*	ɣaniɣani	*eat*
	Saliba	kai-	*eat sth*	kai-kai	*eat*
	Motu	ani-	*eat sth*	ani-ani	*eat*
Adm:	Titan	áni	*eat sth*	anáan	*eat*
SO:	Tamambo	xani	*eat sth*	xanxani	*eat*
	N-E Ambae	kani-	*eat sth*	ka-kani	*eat*
	Paamese	kani	*eat sth*	kani-an	*eat*
Mic:	Woleaian	xaŋi	*eat sth*	_	
Fij:	Boumaa	ʔani	*eat sth*	ʔana	*eat*

2.3.6.2 THE PREFIX **MA-*

One function of Proto Oceanic **ma-* was to derive an Undergoer subject verb, such that the O argument of the transitive form corresponded to the S argument of the intransitive form. Examples (58) and (59) from North-East Ambae demonstrate this function of *ma-*. In (58) the transitive form of the verb *kore* 'break' is used with an agent expressed as A and a patient as O. In (59) the verb takes *ma-* and the patient is expressed as S. Proto Oceanic **ma-* in this function occurred with verbs high in transitivity and denoted the outcome of a process or process-action.

58) $[nu]_A$ kore $[na\ gai]_O$
1SGS:TEL break ACC wood
I broke the stick.

(Hyslop 1998: 330)

59) $[gai]_S$ u **ma**-kore.
wood TEL ANTI-break
The stick is broken.

(Hyslop 1998: 330)

Proto Oceanic **ma-* also occurred with verbs denoting properties, but was not productive. With some verbs denoting states two forms, one with **ma-* and one without **ma-*, are reconstructable, but with no apparent difference in meaning. For example,

**lago* and **malago* are reconstructable, both meaning 'be long, tall', and **koto* and **makoto* meaning 'be straight'. With other verbs denoting states forms with an initial **ma-* segment are reconstructable, but the original (Proto Malayo-Polynesian) form without **ma-* has been lost.

These two uses of **ma-* and the types of verbs with which they occur suggest that the two classes of Undergoer subject verbs were further subclassified. Some U-process verbs had an unmarked intransitive form and others had an intransitive form with **ma-*. With U-stative verbs, some had two intransitive forms one with **ma-* and one without, whereas others had only an unmarked intransitive form. Chapter 7 looks in more detail at Proto Oceanic **ma-*.

2.3.6.3 THE PREFIX **TA-*

Proto Oceanic **ta-* had the same valency-decreasing function as **ma-*, that is, it derived an Undergoer subject intransitive verb, whereby the transitive O argument corresponded with the intransitive S argument. Examples (60) and (61) from North-East Ambae demonstrate this function.

60) [da]$_A$=mo tai visa [na avi]$_O$
1NSG.INCS=RL chop split ACC firewood
We split the firewood (by chopping it).

(Hyslop 1998: 331)

61) [gai]$_S$ u te-visa
wood TEL ANTI-split
The wood/tree is split.

(Hyslop 1998: 332)

Proto Oceanic **ta-* occurred with process-action verbs, indicating the lack of an external agent. Thus, **ta-* occurred with some U-process verbs. Chapter 7 looks at **ta-* in more detail.

2.4 THE PROTO OCEANIC SYSTEM OF VERB CLASSES

This chapter has made proposals about the system of verb classes in Proto Oceanic. Verbs in Proto Oceanic were divided into several morphosyntactic classes on the basis of: (i) the macrorole of the intransitive subject and the relationship between the intransitive and transitive forms of a verb; and (ii) the types of valency-changing devices with which a verb occurred. These morphosyntactic classes tended to correlate with semantic classes of verbs.

Morphosyntactically the first division was between Undergoer subject verbs and Actor subject verbs. Undergoer subject verbs had an intransitive subject (S) argument with the macrorole of Undergoer, and the intransitive S argument corresponded to the transitive O argument. Actor subject verbs had an S argument with the macrorole of Actor, and the intransitive S argument corresponded to the transitive A argument.

Each of these classes was further subdivided on the basis of the different valency-changing devices with which they occurred. Proto Oceanic had three valency-increasing devices and at least three valency-decreasing ones. The ways in which these valency-changing devices correlated with the derivational functions in Proto Oceanic is schematised in Table 2.39. The transitive suffix **-i* and/or the object enclitics increased the valency of verbs in two ways. With Undergoer subject verbs an extra argument occurred as A and the S and O arguments corresponded, whereas with Actor subject verbs an extra argument occurred as O and the S and A arguments corresponded. Proto Oceanic **akin[i]* also had these two valency-increasing functions. The other valency-changing devices each had only one derivational function. The causative prefix **pa[ka]-* derived transitive forms which took an extra argument as A and the S and O arguments corresponded. Valency-decreasing reduplication derived intransitive forms with which the O argument was no longer mentioned and the S and A arguments corresponded. The valency-decreasing prefixes **ma-* and **ta-* derived intransitive forms with which the A argument was no longer mentioned and the S and O arguments corresponded.

Table 2.39: Proto Oceanic valency-changing devices and their derivational functions

valency-decrease	derivational relationship	valency-increase
reduplication	$\mathbf{S_X}$ V_{INTR} $\mathbf{A_X}$ V_{TR} O_Y	**-i; *akin[i]*
**ma-; *ta-*	$\mathbf{S_X}$ V_{INTR} A_Y V_{TR} $\mathbf{O_X}$	**pa[ka]-; *-i; *akin[i]*

Undergoer subject verbs were divided into two groups: U-stative verbs which had a transitive form with **pa[ka]-*; and U-process verbs which had a transitive form with **-i* and/or the object enclitics. U-process verbs were further subclassified into those which had an unmarked intransitive form and those which had an intransitive form derived with the prefix **ma-*. U-stative verbs were subclassified into those that had two intransitive forms, one with **ma-* and one without, and those that had only an unmarked intransitive form. As in modern languages, there was probably also a number of Undergoer subject verbs in Proto Oceanic which could take either the causative prefix **pa[ka]-* or the transitive suffix **-i* and/or the object enclitics.

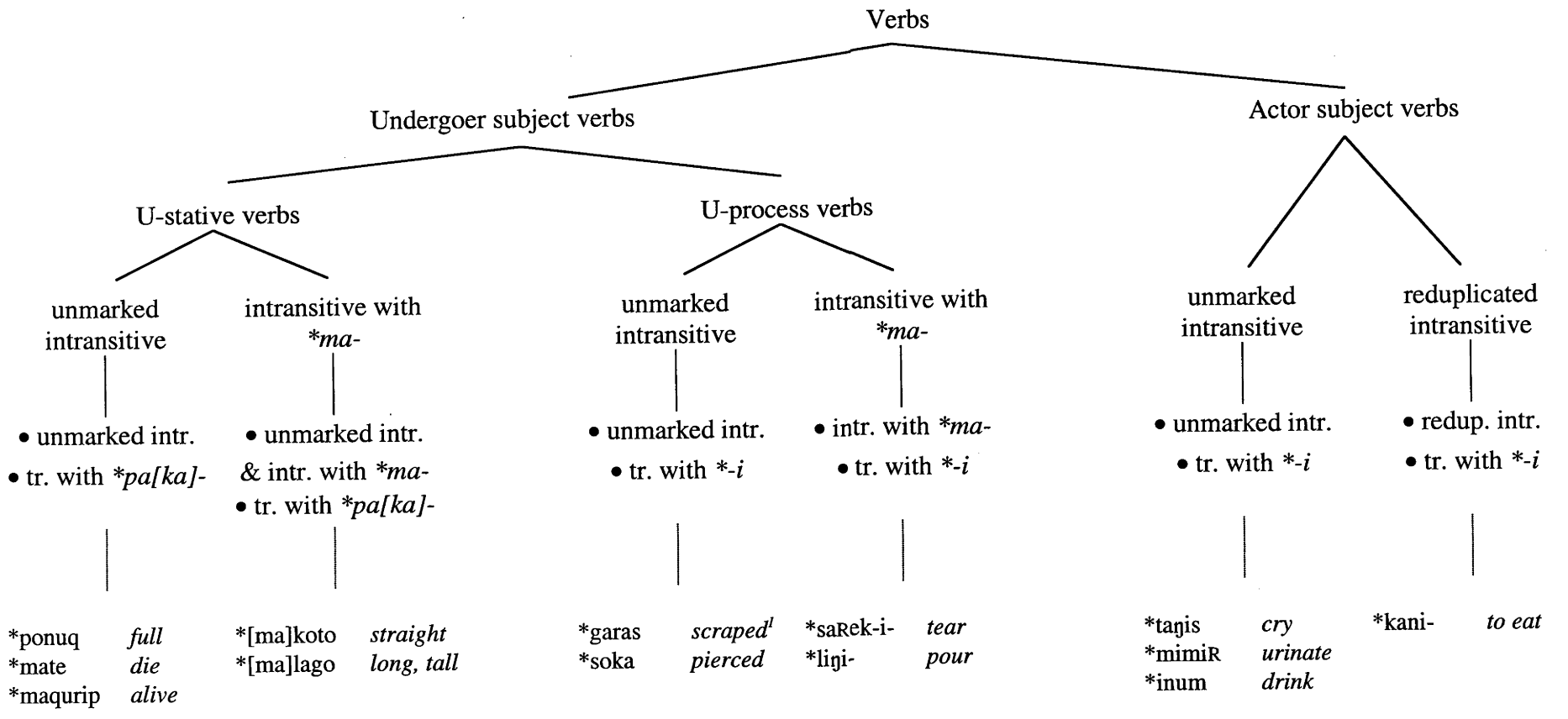
Actor subject verbs were also divided into two groups. All Actor subject verbs had transitive forms with the transitive suffix **-i* and/or the object enclitics. The majority of such verbs had unmarked intransitive forms, but there was a group which had intransitive forms derived with reduplication. Many, if not all, Actor subject verbs also had transitive forms with the causative prefix **pa[ka]-*, deriving forms with which the S and O arguments corresponded and a new causer participant was expressed as A.

Figure 2.3 gives a schematic diagram of the morphosyntactic classes of Proto Oceanic verbs and also lists some reconstructed verbs whose class is known[33].

U-stative verbs, Undergoer subject verbs transitivised with **pa[ka]-*, typically denoted states. The verbs **mate* 'die, be dead' and **maqurip* 'live, be alive' also appear to have been part of this morphosyntactic class. U-process verbs, those Undergoer subject verbs transitivised with **-i* and/or the object enclitics, typically denoted

[33] The supporting data for these reconstructions are given in Appendix B.

Figure 2.3: Verb classes in Proto Oceanic



[1] The verbs **garas* 'scrape, be scraped' and **soka* 'pierce, be pierced' are included as U-process verbs here on the basis of their action-process meanings. However, it is possible that they were Actor subject verbs.

processes and process-actions. The semantic types of verbs which tended to be U-process ones were:

(a) affect verbs
(b) some motion verbs, probably those which could take a non-volitional 'moving' participant
(c) verbs of opening and closing
(d) verbs of beginning
(e) verbs of smelling

In modern Oceanic languages the correlations between the two morphosyntactic classes of Undergoer subject verbs and the semantic groups are only approximate. Particular verbs of the same semantic class sometimes belong to different morphosyntactic classes (see Table 2.18). The same was presumably also true of Proto Oceanic. This was probably the case with verbs of finishing. Those which typically denoted the state of being finished or used up would have been U-stative verbs, and those which typically denoted the process of finishing or concluding would have been U-process verbs. Also particular verbs have shifted class over time, as is evident from the fact that often the modern reflexes of a form belong to different morphosyntactic classes. Such changes would have been due to changes in the meaning of particular verbs as different parts of the causal chain, state, process or process-action were given more or less prominence. Verbs denoting situations which frequently could have both state or process meanings may have had or have developed two transitive forms.

Actor subject verbs were those forms which typically denoted actions and some process-actions, including verbs of the following semantic types:

(a) verbs of mode and direction of motion
(b) verbs of throwing and hitting
(c) corporeal verbs
(d) verbs of cognition
(e) emotion verbs
(f) some verbs of seeing
(g) those verbs of taste which had the meaning of 'to try'

Section 2.2.3 mentioned some proposals that have been made concerning the semantic basis of Undergoer subject and Actor subject verbs cross-linguistically, but

what can be determined about the distinction in Oceanic languages, and perhaps also in Proto Oceanic?

Dixon (1988: 204-214) looks at the semantic types of verbs which are Undergoer subject and Actor subject in Boumaa Fijian. He concludes that the intransitive subject will be the participant seen to be more significant in the situation denoted by the verb. For example, if the agent participant is the more significant then it will be expressed as the S argument and the verb will generally be classified as an Actor subject one. Kazenin (1994: 151-152) proposes a similar basis for the split in a study of Boumaa Fijian, Asiatic Eskimo and Bambara (Mande family, Mali). He states that Undergoer subject verbs are those which denote situations where the patient participant is highly affected by the situation denoted by the verb and that any agent participant is a mere causer. Actor subject verbs, on the other hand, are those which denote situations that convey information concerning the state, purposes or modes of activity of the agent participant. But what about verbs denoting situations where a patient participant is highly affected and where detailed information about an agent participant is conveyed? Here, Kazenin (1994) states that there is variation across languages. In Asiatic Eskimo such verbs are Actor subject forms, whereas in Boumaa Fijian they are Undergoer subject forms. Thus, in Boumaa Fijian with verbs that have both an affected patient participant and a highly characterised agent participant, it appears that the affectedness of the patient is seen as primary and such verbs are Undergoer subject.

In section 2.3.2.3 it was shown that many U-process verbs denote process and process-action situations. With some U-process verbs, like those in Table 2.40, the situation denoted clearly implies an agent participant. Some of the situations denoted by U-process verbs not only imply an agent participant, but also convey information about the manner in which the agent carries out the event. For example, Boumaa Fijian *qili* 'be rubbed in hands to shape', *'oti* 'be cut with scissors' and *'usi* 'be rubbed with a cloth' clearly convey the manner in which the agent participant brings about the event.

Table 2.40: Undergoer subject verbs in Oceanic languages which imply an agent participant

intransitive		transitive	
Motu			
haraka	*be burnt in cooking*	haraka-i-a	*burn sth in cooking*
Mekeo			
kapu	*be plucked*	kapu-i-	*pluck sth*
Hoava			
tuke	*be thrown away*	tuke-	*to throw sth away*
Kwaio			
gili	*be incised*	gili-	*to write, incise sth*
Woleaian			
fatelaga	*be built*	fatelaga-	*build, construct sth*
gamisi	*be painted, annointed*	gamisi-	*paint, annoint sth*
kereo	*be scraped*	gereo-ti-	*scrape sth*
laat	*be dug, be ditched*	laata-	*change sth into a ditch*
liiweli	*be changed*	liiweli-	*change, replace sth*
paala	*be patched*	paala-	*patch sth*
Boumaa Fijian			
motu	*be beaten with a club*	motu-'a	*beat sth with a club*
qali	*be braided together in a rope*	qali-na	*braid sth together in a rope*
qili	*be rubbed in hands to shape*	qili-a	*rub sth in hands to shape*
tala	*be shared out, unloaded*	tala-ca	*share out, unload sth*
tara	*be built (house)*	tara-a	*build sth (a house)*
'oti	*be cut with scissors*	'oti-va	*cut sth with scissors*
'usi	*be wiped with a cloth*	'usi-a	*wipe sth with a cloth*

(data from Lister-Turner & Clark 1954, Jones 1998, Davis 1997, Keesing 1975, Sohn & Tawerilmang 1976 and Dixon 1988)

Oceanic languages are typologically unusual in having Undergoer subject verbs that imply an agent participant. Haspelmath (1993) describes the intransitive and transitive forms of Undergoer subject verbs as inchoative/causative pairs. He (1993: 92-

96) proposes that cross-linguistically the semantic types of verbs which can occur as inchoative/causative pairs are those that:

(i) refer to a change of state or going-on;
(ii) do not contain agent-oriented meaning components; and
(iii) do not contain other specific meaning components that make the spontaneous occurrence of the event extremely unlikely.

For example, the English verb 'tear' has a transitive causative form as in (62a), and an inchoative or Undergoer subject intransitive form, as in (62b). However, 'cut' which differs from 'tear' in having the additional agent-oriented meaning component of 'by means of a sharp instrument', has a transitive causative form as in (63a), but an inchoative, as in (63b), is ungrammatical[34].

62) a. The girl tore her pants.
b. The pants tore.

(Haspelmath 1993: 93)

63) a. The tailor cut the cloth.
b. **The cloth cut.

(Haspelmath 1993: 93)

In Oceanic languages verbs denoting processes and process-actions (changes of state and goings-on) which comprise agent-oriented meaning components, such as the implication of an agent participant, and even the manner in which the agent carries out the event are often Undergoer subject verbs, and on these grounds the same pattern can be reconstructed for Proto Oceanic. Furthermore, as this is a typologically unusual pattern it is more plausible to propose that this feature has been inherited from the proto-language, rather than to assume it developed independently in several languages. Thus, it can be proposed that in Proto Oceanic the boundary between Undergoer and Actor subject verbs was based primarily on the affectedness of the patient participant.

In modern Oceanic languages how affected a patient participant needs to be for the verb to be classified as an Undergoer subject form varies from language to language. Considering Dixon's (1991) categories of affect verbs, Oceanic languages differ as to the number of categories which comprise Undergoer subject verbs. Table 2.41 gives the

[34] 'The cloth cuts easily' is possible, but it has a passive (or middle) interpretation, not an inchoative one (Haspelmath 1993: 109).

number of Undergoer subject verbs found in each of the eight categories of affect verbs in Motu, Kwaio, Woleaian and Boumaa Fijian. The order of these categories, from top to bottom, appears to reflect a scale of the affectedness of the patient participant. That is, verbs denoting TOUCH situations will have a less affected patient participant than verbs denoting HIT, STRETCH or BREAK situations. With some of the middle categories, such as WRAP, RUB and STAB, it is difficult to determine an order in terms of affectedness of the patient as it varies from verb to verb.

Table 2.41: Affect verbs as Undergoer subject forms

	Motu	Kwaio	Woleaian	Boumaa Fijian
TOUCH	_	_	_	_
HIT	_	_	_	3
STAB	_	1	1	4
RUB	_	_	2	14
WRAP	1	_	8	7
STRETCH	4	3	4	14
BUILD	_	1	5	10
BREAK	4	6	12	20

(based on data from Lister-Turner & Clark 1954, Keesing 1975, Sohn & Tawerilmang 1976 and Dxion 1988)

As can be seen from Table 2.41, verbs with TOUCH meanings do not occur as Undergoer subject forms in any of the languages and this is expected since the patient participant would be only slightly, if at all, affected. In Boumaa Fijian some HIT verbs, and verbs of all categories from HIT down are Undergoer subject. This suggests that in Boumaa Fijian if the paitient participant is even only slightly affected then the verb will be classified as Undergoer subject. HIT verbs which are non-specific as to how affected the patient participant is are split between the two classes. In Woleaian it appears that a patient participant must be somewhat more affected by the event denoted and it is from STAB down that Undergoer subject verbs are found. In Motu the patient participant has to be even more affected by the event for a verb to be an Undergoer subject form, with only WRAP, STRETCH and BREAK verbs found to be Undergoer subject forms. In Kwaio the categories found to have Undergoer subject verbs are rather patchy, but the affectedness of the patient participant still appears to be a determining feature.

It is not possible to make any hypotheses about where the boundary between Actor subject and Undergoer subject affect verbs was placed in Proto Oceanic without reconstructing the grammar of many particular lexical items. So while several hypotheses can be put forward, which is the more likely cannot be determined. Three hypthoses are:

(i) Proto Oceanic was like Boumaa Fijian, and other Fijian languages, where affect verbs denoting situations where a patient participant is affected in some way are Undergoer subject forms. The only Actor subject affect verbs would have been TOUCH verbs and at least some HIT verbs.
(ii) Proto Oceanic was like Motu, where only affect verbs denoting situations where the patient participant was highly affected were Undergoer subject verbs, and other affect verbs were Actor subject forms.
(iii) Proto Oceanic was like Kwaio and Woleaian and Undergoer subject verbs were still those forms denoting process-action situations with an affected patient participant, but not necessarily so highly affected as in Motu nor so slightly affected as in Boumaa Fijian.

Finally we may ask, do the classes of verbs reconstructed for Proto Oceanic actually go back further in the history of Austronesian? A detailed consideration of this question is beyond the scope of this thesis, but similarities between morphosyntactic classes of verbs in Tagalog and those reconstructed here for Proto Oceanic suggest that these Proto Oceanic verb classes may reflect a Proto Malayo-Polynesian system of verb classes.

Foley and Van Valin (1984) present Tagalog data which suggest that the two morphosyntactic classes of Undergoer subject verbs were much older and inherited into Proto Oceanic. Chapter 7 shows how the two different reflexes of **ma-* in Proto Oceanic reflect two different functions of Proto Malayo-Polynesian **ma-*. The fossilised reflexes of **ma-* with U-stative verbs are cognate with the Tagalog state or 'having' meaning of *ma-* with property terms. The valency-decreasing function of **ma-* with U-process verbs is cognate with the Tagalog process or 'becoming' meaning of *ma-* with affect-type forms. Foley and Van Valin (1984: 71) note that Tagalog forms with which *ma-* has a state function, such as *ma-buti* 'good', have agentive forms derived with *mag-pa-*, hence *mag-pa-buti* 'improve'. Forms with which *ma-* has a process meaning, such as *ma-basag* 'be broken', have agentive forms derived with *mag-*, hence *mag-basag* 'break'. Thus in Tagalog there seems to be the same correlation between *ma-* with property verbs and a 'transitive' form with the causative prefix *pa-*, and

between *ma-* with affect verbs and a 'transitive' form without the causative prefix. A preliminary search of Tagalog dictionaries (Ramos 1971 and English 1977) shows that this correlation is not a strict one, but if indeed it is a tendency it provides external evidence for the two classes of Undergoer subject verbs in Proto Oceanic.

Foley (1976: 156-166), comparing Bauan Fijian and Tagalog, suggests that a distinction between process verbs and action verbs is reflected morphosyntactically in both languages and probably reflects a similar distinction in Proto Malayo-Polynesian. In Fijian this distinction is that of Undergoer subject and Actor subject verbs. In Tagalog the distinction is realised as one between different types of marking with the actor focus forms: process verbs taking *mag-* and action verbs taking *-um-*. This distinction is less clear in Tagalog because it interacts with aspectual distinctions, with *-um-* occurring with punctual aspect, even with some process verbs, and *mag-* occurring with durational aspect. Foley (1976) notes that the correlations between these verb classes in Fijian and Tagalog are not perfect, and indeed it would not be expected that they should be, but more careful examination of the data and Foley's suggestion may lead to a pre-Oceanic history of verb classes.

3 *transitivising *-i*

3.1 Introduction

A transitivising suffix **-i* with both causative and applicative uses is clearly reconstructable for Proto Oceanic. In its applicative use **-i* contrasted with transitivising **akin[i]* in terms of the types of participants expressed by the O argument. The O argument of a verb with **-i* denoted roles such as patient, stimulus, goal and location, whereas the O argument of a verb plus **akin[i]* denoted roles such as concomitant, instrument and beneficiary. Pawley (1973) calls **-i* the 'close' transitive suffix as the types of roles denoted are those typically associated with direct objects, and **akin[i]* the 'remote' transitive suffix as it denotes more accessory-type roles. Proto Oceanic **-i* also occurred with transitive verbs which took other transitivising devices. However, only some transitive verbs in Proto Oceanic took **-i*, while others took the object enclitics directly.

This chapter briefly describes some features of the reflexes of **-i* in modern Oceanic languages and then examines Proto Oceanic **-i*. The main issue considered in the chapter is the distribution of Proto Oceanic **-i*. That is, which verbs took **-i* and which took the object enclitics directly.

3.2 Reflexes of **-I*

The Proto Oceanic transitivising suffix **-i* is reflected as just that, a transitivising suffix, in many modern Oceanic languages. Examples (1) and (2) from Saliba (PT) demonstrate this. In (1) the intransitive form of *mwadine* 'to be shy' is used, and in (2) this verb occurs transitively with the suffix *-i*. Reflexes of **-i* as a transitive suffix not only occur alone to derive transitive verbs, but also occur with verbs taking other types of transitivising devices. This is demonstrated by (3) and (4) from North-East Ambae (SO). The verb *lenga* 'to be crazy' occurs in its intransitive form in (3). This verb takes the

causative prefix *vaga-* in its transitive form, and as shown in (4), also takes the transitive suffix *-i*.

1) ye-mwadine
   3sg-shy
   She's shy.

(Margetts 1999: 153)

2) ye-mwadine-**i**-go
   3sg-shy-**APP**-2sg.O
   She's shy of you.

(Margetts 1999: 153)

3) maresu ngihie mo lenga.
   child that RL crazy/naughty
   That child is crazy/naughty.

(Hyslop 1998: 348)

4) mo vaga-lenga-**i** na qatu-de.
   RL CAUS-crazy-**APP** ACC head-1NSG.INP
   He makes our thoughts confused.

(Hyslop 1998: 348)

However, not all verbs in a language will occur with a reflex of **-i* when used transitively. Some verbs take a reflex of **-i* followed by an object suffix, as in (2) above, and others take the object suffixes directly, as in (5), also from Saliba. The distributions of these two types of verb structures are described in section 3.2.1.

5) ku-sae-ya-ma
   2sg-go.up-3sg.O-hither
   bring her up here

(Margetts 1999: 94)

As transitivising suffixes, reflexes of **-i* often have both causative and applicative uses, determined by the verb stem to which they are attached. The applicative uses of **-i* reflexes tend to introduce the same types of participants as the O argument across languages. These different functions of **-i* reflexes are described in section 3.2.2.

Often **-i* is reflected with an initial variable consonant that is lexically-determined. For example, all three verbs in (6), (7) and (8) from Longgu (SES) occur with the

transitive suffix, but each take a different allomorph, *-li*, *-si*, and *-ni*, respectively. There are several other allomorphs of the Longgu transitive suffix *-Ci*, the occurrence of which is dependent on the verb stem itself. The consonants of such forms are conventionally called thematic consonants and are described in section 3.2.3.

6) biti e poga-**li**-a komu-i
volcano 3sg erupt-TR-3sg village-SG
The volcano erupted on the village.

(Hill 1992: 59)

7) e mae-**si**-a malaria-i
3sg die-TR-3sg malaria-SG
He/she died of malaria.

(Hill 1992: 66)

8) mwela-i e ma'u-**ni**-a pilazia
child-SG 3sg frightened-TR-3sg lightning
The child is frightened of the lightning.

(Hill 1992: 66)

3.2.1 Distribution of *-*I* reflexes

Oceanic languages often have two types of transitive verbs, exemplified by those in (9) and (10) from Kwaio (SES). In (9) the verb *aga* 'see' is followed by the transitive suffix *-si* and an object suffix *-a*. In (10) the verb *kwa'i* 'hit' takes the object suffix directly with no intervening transitive suffix.

9) wane ka 'ame aga-si-a
man SRP(3s) NEG see-TR-PRO(3s)
The man didn't see it.

(Keesing 1985: 29)

10) ngaia ka kwa'i-a noni
FPR.3sg SRP(3s) hit- PRO(3s) woman
He killed a woman.

(Keesing 1985: 219)

Examples (11) and (12) show the same two types of verbs in Saliba. In (11) the verb *kuma* 'to plant' takes the applicative suffix *-i* followed by the object suffix *-di*, whereas in (12) the verb *hedede* 'to talk, tell' takes the object suffix directly.

11) kwateya ye-kuma-i-di
yam 3sg-plant-APP-3pl.O/P
He planted yams.

(Margetts 1999: 90)

12) se-hedede-go
3pl-talk/tell-2sg
They talked about you.

(Margetts 1999: 94)

In most languages these two different types of transitive structures are lexically-determined. That is, some verbs take a transitive suffix followed by an object suffix and others take the object suffixes directly, and the conditioning feature is simply the verb itself. This is the case in many languages, including Saliba, Longgu and Kwaio, North-East Ambae and Woleaian (Mic).

However, in other languages, such as Motu (PT) and Roviana and Ganoqa (MM), the two different types of structures are determined by the phonological shape of the verb stem. For example, in Motu all verbs are vowel-final and those which end in an *-a* vowel take the transitive suffix *-i*, whereas others take the object suffixes directly. This can be seen from the examples given in Table 3.1.

Table 3.1: Motu verbs taking *-i* and/or the object suffixes[1]

verbs taking *-i*		verbs taking object suffixes directly	
ahava-i-	*to drive, chase*	abi-	*to have, hold*
ala-i-	*to kill*	ani-	*to eat*
ara-i-	*to set fire to*	bagu-	*to carry*
bara-i-	*to row*	bou-	*to hammer*
beia-i-	*to wait for*	budu-	*bore a hole*
bota-i-	*to beat, thrash*	dai-	*to build*
daba-i-	*to sieze*	dare-	*to tear*
dagira-i-	*to carry on hip*	dede-	*to singe*
dema-i-	*to caulk*	diro-	*to scribble*
diba-i-	*to know about*	dogo-	*to sieze*
doa-i-	*to pole (a canoe)*	dumu-	*to break in two*

(data from Lister-Turner & Clark 1954)

In Ganoqa the same type of phonological conditioning of *=i* occurs with disyllabic verbs. That is, disyllabic verb stems ending in *-a* take *=i*, and disyllabic verb stems ending in other vowels take the object suffixes directly. Examples of disyllablic verbs in Ganoqa are given in Table 3.2. With polysyllabic verbs in Ganoqa *=i* replaces the final vowel of the verb stem, as shown by the examples in Table 3.3.

Table 3.2: Disyllabic verbs with *=i* and/or object suffixes in Ganoqa

verbs taking *-i*		verbs taking object markers directly	
maja=i-	*to strike*	ude-	*to wrap*
tipa=i-	*to deflect*	vai-	*to kill*
keza=i-	*to climb*	iko-	*to steal*
gona=i-	*to throw*	teku-	*to take*

(data from Kettle 2000)

[1] A hyphen following a verb stem indicates that it is a transitive form to which object suffixes are attached directly.

Table 3.3: Polysyllabic verbs with *=i* in Ganoqa

intransitive		transitive	
surana	*to go aboard*	suran-i-	*to put sth aboard*
ngangangulu	*to ruin, spoil*	ngangangul-i-	*to ruin sth*
golomo	*to hide*	golom-i-	*to hide sth*

(data from Kettle 2000)

The transitive suffix *-i* in Roviana once had the same distribution as its cognate in Ganoqa. That is, it occurred with disyllabic verb stems ending in *-a* and replaced the final vowel of polysyllabic verb stems (Waterhouse 1949). However, a more recent source, Corston (in press), reports that now all disyllabic verbs which do not end in *-i* optionally take the transitive suffix *-i*. For example the verb *seke* 'to hit' has two transitive forms, one, *seke-i-*, with the transitive suffix and another, *seke-*, with the object suffixes attached directly. From these two descriptions, it seems likely that the use of *-i* with disyllabic verb stems in Roviana has been extended. It occurrence has become an option with all disyllabic verbs, except those ending in *-i*. The use of object suffixes attached directly to the verb has also been extended and is now an option with disyllabic verb stems ending in *-a*.

Table 3.4: Disyllabic verbs with *-i* in Roviana

verbs ending in *-a*		verbs ending in other vowels	
hena-i-, hena-	*to take*	gani-	*to eat*
zama-i-, zama-	*to say*	nore-, nore-i-	*to rebuke*
tepa-i-, tepa-	*to ask*	tago-, tago-i-	*to believe*
		hitu-, hitu-i-	*to send away*

(data from Waterhouse 1949 and Corston in press)

Table 3.5: Polysyllabic verbs with *-i* in Roviana

intransitive		transitive	
avoso	*to hear*	avos-i-	*to hear sth*
dogoro	*to see*	dogor-i-	*to see sth*
tioko	*to call out*	tiok-i-	*to call to s.o.*
nanasa	*to ask*	nanas-i-	*to ask s.o.*

(data from Waterhouse 1949)

Some verbs in Southeast Solomonic languages have two transitive forms, one with the transitive suffix followed by the object suffixes, and one with the object suffixes directly attached to the verb stem. For example, in Longgu the verb *luda* 'to load' has two transitive forms: *luda-ngi-* 'load into sth' with the transitive suffix; and *luda-* 'to load sth' with the object suffix attached directly to the verb stem. The difference between these two transitive forms is the role of the O argument. As shown under (13), *luda-ngi-* takes a theme as the O argument. That is, the O argument denotes the cargo that is being loaded. The form *luda-*, on the other hand, takes a location as the O argument. That is, the O argument denotes the thing into which the cargo is being loaded.

13) a. luda-ngi-a niu
load-TR-3sg coconut
load the coconuts

b. luda-a iolai
load-3sg canoe
load the canoe

(Hill n.d.-a)

Debbie Hill (seminar, RSPAS 1996) noted that with a small group of verbs in Southeast Solomonic languages there appears to be a regular alternation between a transitive form with the transitive suffix taking a theme as the O argument, and a transitive form with just the object suffixes taking a location as the O argument. The types of verbs that follow this pattern are the impact verb 'load' and several removal verbs, including meanings such as 'carve', 'pick', 'weed', 'peel' and 'scrape'. Table 3.6 gives examples of verbs in a few languages where the correlation between the transitive form and the role of the O argument are clear. With other verbs, in other languages, there may only be one transitive form, but the correlation between the form and the role of the O arguments still holds.

Table 3.6: Verbs with two transitive forms in Southeast Solomonic languages

verb plus object suffix with location as O		verb plus transitive suffix and object suffix with theme as O	
Longgu			
luda-	*to load the canoe*	luda-ngi-	*to load cargo*
garu-	*to carve (a canoe)*	garu-mi-	*to carve (piece of wood)*
Ghari			
lutsa-	*to load a boat, canoe, truck*	lutsa-ngi-	*to load cargo*
langu-	*to weed (garden)*	langu-si-	*pull out weed, vine*
iko-	*to pluck the fruit off*	iko-ti-	*to pluck fruit*
Kwaio			
kwala-	*bail (canoe)*	kwala-fi-	*bail out, divert, catch*
Gela			
karu-	*to strip leaves off*	karu-hi-	*to strip off*

(data from Hill n.d.-a)

3.2.2 FUNCTIONS OF *-*I* REFLEXES

Reflexes of *-*i* commonly have both causative and applicative transitvising uses, determined by the verb stem to which they are attached. With Actor subject verbs *-*i* reflexes have an applicative function and with Undergoer subject verbs *-*i* reflexes have a causative function. These two different uses of *-*i* reflexes are described in detail in Chapter 2, and shown here by examples (14) to (17) from Saliba (PT). The form *bahe* 'to carry' is an Actor subject verb and occurs in its intransitive form in (14). In (15) this verb occurs transitively with the transitive suffix *-i*. In this clause a new argument has been introduced as O, and the intransitive S argument corresponds with the transitive A argument. Here *-i* has an applicative use. The form *nonoha* 'to be ready' is an Undergoer subject verb with which *-i* has a causative use. The intransitive form of this verb is shown in (16). The transitive form with *-i*, as in (17), takes an extra argument as A, and the intransitive S and transitive O arguments correspond. Reflexes of *-*i* have both these types of uses in many Oceanic languages, including Manam, Motu, Hoava (MM), Longgu and Kwaio, Woleaian, Boumaa Fijian and Wayan Fijian.

14) $[ye]_S$-bahe
3sg-carry
He carried.

(Margetts 1999: 145)

15) $[ye]_A$-bahe-i-$[Ø]_O$
3sg-carry-APP-3sgO
He carried it.

(Margetts 1999: 145)

16) $[se]_S$-nonoha
3pl-ready
They are ready.

(Margetts 1999: 145)

17) $[ye]_A$-nonoha-i-$[di]_O$
3sg-ready-APP-3pl.O/P
He gets them ready.

(Margetts 1999: 145)

With the applicative uses of reflexes of **-i* the type of participant expressed by the O argument is often predictable from the semantics of the verb stem. The correlations between type of participant and type of verb with examples are given in Table 3.7. This analysis follows Pawley's (1986) analysis of Bauan (Standard) Fijian, and as can be seen from the examples, holds for other languages also. With verbs denoting motion and posture **-i* reflexes introduce a location or goal role as the O argument, and with verbs denoting bodily processes **-i* reflexes also introduce a location role. With verbs of speaking **-i* reflexes introduce an addressee role as the O argument, and with verbs denoting emotional and psychological states **-i* reflexes introduce a stimulus role. In many languages reflexes of **-i* with process-action verbs are described as introducing a patient participant. But not all transitive verbs with the transitive suffix that have a patient participant expressed as O are Actor subject forms. So while with some process-action verbs reflexes of **-i* have applicative uses and introduce a patient participant as O, with other verbs, which are Undergoer subject, **-i* reflexes have a causative function and the introduced participant is actually a causer expressed as A.

Table 3.7: Roles denoted by reflexes of *-*i* in modern languages

intransitive		transitive with reflexes of *-*i*	
(A) location or goal with motion and posture verbs			
Saliba			
bawa	*stay*	bawa-i-	*stay in sth*
Hoava			
haqala	*run*	haqal-i-	*to run along sth*
nuquru	*enter*	nuqur-i-	*to enter sth*
Longgu			
bola	*jump*	bola-vi-	*jump at sth*
eno	*lie down*	eno-vi-	*lie on sth*
dio	*fall*	dio-ngi-	*fall on sth*
lae	*go*	la-vi-	*to go for sth*
zudu	*sit*	zudu-vi-	*sit on sth*
Kwaio			
aŋo	*crawl, creep*	aŋo-fi-	*crawl towards, stalk sth*
olo	*leap, jump*	olo-fi-	*jump to, spring at*
Boumaa Fijian			
lade	*jump*	lade-va[2]	*jump for/over sth*
yaqa	*creep*	yaqa-va	*creep to sth*
vu'a	*fly*	vu'a-ca	*fly across/to sth*
'ada	*run*	'ada-va	*run for sth*
bale	*fall*	bale-ta	*fall on sth*
(B) location with bodily process verbs			
Manam			
ʔulena	*vomit*	ʔulena-r-	*vomit on sth*
moŋo	*spit*	moŋo-r-	*spit on sth*
Saliba			
kaiso	*spit*	kai-kaiso-i-	*spit on sth*
bwasulu	*urinate*	bwasu-bwasulu-i-	*urinate on sth*

[2] Boumaa Fijian *-Ca* reflects a contraction of Proto Oceanic *-*i* and the 3sg object enclitic *=*a*, with an initial thematic consonant.

Table 3.7 (cont)

intransitive		transitive with reflexes of **-i*	
Longgu			
moamoa	*vomit*	moa-li-	*vomit on sth*
North-East Ambae			
deo	*defecate*	dedeo-si-	*defecate on sth*
lodo	*spit*	lodo-si-	*spit on sth*
lue	*vomit*	lue-hi-	*vomit on sth*
mimi	*urinate*	mimi-hi-	*urinate on sth*
Woleaian			
kaleoleo	*urinate*	kaleoleo-tii	*urinate on sth*
Boumaa Fijian			
buno	*sweat*	buno-ca	*sweat at sth*
kasivi	*spit*	kasivi-ta	*spit on sth*
lua	*vomit*	lua-ca	*vomit on sth*
(C) addressee with verbs of speaking			
Saliba			
diladila	*scold*	dila-i-	*scold s.o.*
kaibwada	*ask*	kaibwada-i-	*ask s.o.*[3]
Hoava			
kikiu	*call*	kikiu-i-a	*call s.o.*
nanasa	*ask*	nanas-i-a	*ask s.o.*
Bauan Fijian			
sure	*ask s.o.'s help*	sure-ti	*ask help of s.o.*
tagi	*cry*	tagi-ci	*cry for s.o.*
vosa	*speak, talk*	vosa-ki	*speak to s.o.*

[3] The form *kaibwada-i-* can also take the thing requested as its O argument, thus 'ask for'.

Table 3.7 (cont)

intransitive		transitive	
(D) stimulus with emotion and psychological verbs			
Saliba			
mwadine	*be shy*	mwadine-i-	*be shy of s.o.*
Longgu			
dolo	*love*	dolo-vi-	*love s.o.*
ma'u	*be frightened*	ma'u-ni-	*be frightened of sth*
zake	*be angry*	zake-vi-	*angry at s.o.*
Bauan Fijian			
gadre	*desire*	gadre-vi-	*desire sth*
leva	*be angry*	leva-ci-	*be angry with*
tadra	*dream*	tadra-i-	*dream (a dream)*
(E) patient with process-action verbs			
Saliba			
sikwa-sikwa	*poke*	sikwa-i-	*poke sth*
deula	*terrace (gardens)*	deula-i-	*terrace sth*
lulu	*fight*	lulu-i-	*attack sth*
naba-naba	*carry on head*	naba-i-	*carry sth on head*
tabe	*pull*	tabe-i-	*pull sth*
Woleaian			
mmweiu	*be broken off*	mweiu-ti-	*break sth*
kereo	*be scraped*	gereo-ti-	*scrape sth*
wau	*to hit, strike*	wau-ti-	*hit, strike sth*
fiya-fiya	*to squeeze, press*	fiya-ngi-	*squeeze, press sth*
bugo-bugo	*to tie, bind*	bugo-si-	*tie, bind sth*
Boumaa Fijian			
nima	*bail*	nima-ta	*bail out a canoe*
rabo	*sling*	rabo-ta	*sling at sth*

(data from Margetts 1999, Davis 1997, Hill 1992, n.d.-b, Keesing 1975, Dixon 1988, Lichtenberk 1983, Hyslop 1998, Sohn &Tawerilmang 1976, Pawley 1986 and Capell 1968)

Another way in which Proto Oceanic *-*i* is reflected is as a 3sg object suffix. This is the case in Manam (NNG), as shown by examples (18) and (19). Proto Oceanic *-*i* is reflected as a 3sg object marker in many, but not all, Western Oceanic languages (Evans 1995).

18) nápa u-sámi-n-i
mango 1sg.RL-boil-THC-3sg.OBJ
I boiled the mango.

(Lichtenberk 1983: 155)

19) ʔúsi mánipi-Ø u-záza-i
loincloth thin-3sg.AD 1sg.RL-buy-3sg.OBJ
I bought a thin loincloth.

(Lichtenberk 1983: 327)

In most Eastern Polynesian languages, including Māori, Hawaiian and Tahitian, the apparent reflex of Proto Oceanic **-i* has become a passive suffix. For example, (20), from Tahitian, gives an active clause with the verb *hohoni* 'to bite'. In (21) the verb takes the suffix *-hia* forming a passive construction. Example (22) shows the same passive construction, but with the Actor participant overtly mentioned.

20) 'u a hohoni te uri 'i te tamaiti
PAST bite the dog OBJECT the boy
The dog bit the boy.

(Lynch 1998: 143)

21) 'u a hohoni-**hia** te tamaiti
PAST bite-**PASSIVE** the boy
The boy was bitten.

(Lynch 1998: 143)

22) 'u a hohoni-**hia** te tamaiti 'e te uri
PAST bite-**PASSIVE** the boy by the dog
The boy was bitten by the dog.

(Lynch 1998: 143)

The intial consonant of the passive suffix in Polynesian languages is a thematic consonant, and the *-i* vowel is taken to be a reflex of the Proto Oceanic transitivising suffix **-i*. The origin of the *-a* vowel is less clear. Churchward (1951: 74) proposes that the final *-a* was originally a pronominal suffix. Clark (1973: 589) concludes that originally *-a* must have had a stative or durative meaning, and Pawley (seminar, RSPAS 1999) presents evidence for the reconstruction of a suffix **-a* for Proto Central/Eastern

Oceanic which derived stative verbs from transitive ones, proposing it to be the source of the final *-a* in Polynesian passive suffixes[4].

Reflexes of Proto Oceanic **-i* with a passive use are also found in some Fijian languages. For example, (23), from Boumaa Fijian gives an active transitive clause with the verb *dree* 'to pull'. In (24) the verb takes the suffix *-ti* to derive a passive construction. The transitive suffix *-ta* in (23) also derives historically from the transitivising suffix **-i*, reflecting a thematic consonant and a contraction of **-i* plus the 3sg object enclitic **=a*.

23) e dre-ta a waqa a cauravou
3sg pull-TR ART boat ART youth
The youth is pulling the boat.

(Dixon 1988: 47; gloss mine)

24) e dre-**ti** a waqa
3sg pull-**PASS** ART boat
The boat is being pulled.

(Dixon 1988: 47; gloss mine)

The passive uses of reflexes of **-i* in Polynesian and Fijian languages are taken to be innovations and are not discussed further.

3.2.3 THEMATIC CONSONANTS

As mentioned earlier, in many Oceanic languages Proto Oceanic **-i* is reflected as *-Ci*, where *C* represents a lexically-determined consonant. Such a reflex of **-i* was shown in examples (6) to (8) from Longgu, and can also be seen from the Longgu, Kwaio, Woleaian and Bauan Fijian examples verbs in Table 3.7. These consonants are known as thematic consonants. Often thematic consonants reflect original stem-final consonants that have been reanalysed as part of the transitive suffix[5]. Table 3.8 shows the stages of development of thematic consonants. Stage I represents Proto Oceanic, where a consonant-final verb like **taŋis* 'to cry' occurred unmarked when used intransitively and took the transitive suffix **-i* when used transitively. At some post-Proto Oceanic stage, Stage II, many Oceanic languages underwent a change whereby consonants in word-final

[4] See Clark (1976) and Chung (1978) for a more detailed discussion of *-Cia* in Polynesian languages.

[5] With some verbs in modern languages the thematic consonants do not reflect the original stem-final consonants of Proto Oceanic, but rather innovative ones occur.

position were lost[6]. Thus the intransitive form became **taŋi*. However, no change occurred in the transitive form as it took the transitive suffix **-i* and the stem-final consonant was not in word-final position. As this consonant occurred before **-i* with the transitive form, but not elsewhere, it was subsequently reanalysed as a part of the transitive suffix. Thus, in Stage III, represented by Wayan Fijian, the verb *tagi* 'to cry' takes the transitive suffix *-ci* where *c* reflects the original Proto Oceanic stem-final consonant[7].

Table 3.8: Development of thematic consonants with reflexes of **-i*

	intransitive form		transitive form	
Stage I: POc	*taŋis	*cry*	*taŋis-i-	*cry for sth*
Stage II	*taŋi	*cry*	*taŋis-i-	*cry for sth*
Stage III: Wayan Fijian	tagi	*cry*	tagi-ci-	*cry for sth*

Not all verbs in a language which reflects **-i* as *-Ci* will occur with the "correct" thematic consonant, that is, the one reflecting the original stem-final consonant. Obviously over time the thematic consonants with some verbs have changed. Arms (1974) proposes for Bauan Fijian that thematic consonants have changed to a system in which there are correlations between particular thematic consonants and particular semantic properties, such that verbs with shared semantic propoerties will take the same thematic consonant. Thematic consonants are crucial in the reconstruction of Proto Oceanic **akin[i]* and are described in more detail in Chapter 5.

3.3 Proto Oceanic **-I*

In Proto Oceanic **-i* was a transitive suffix with both causative and applicative uses. As in modern languages, with applicative uses of **-i*, there were correlations between the type of role expressed by the O argument and the type of verb. The major

[6] In some Meso-Melanesian and Papuan Tip languages an additional vowel was added to consonant-final words. This type of change is described in more detail in section 3.3.1.2.2.

[7] In Wayan Fijian orthographic *c* represents *[ð]*, a regular reflex of Proto Oceanic **s*, and orthographic *g* represents *[ŋ]*, reflecting Proto Oceanic **ŋ*.

issue considered in this section is the distribution of *-*i* in Proto Oceanic. That is, what was the conditioning factor for the presence of *-*i* with a transitive verb?

3.3.1 DISTRIBUTION OF *-*I*

Pawley and Reid (1979: 105) define a transitive verb in Proto Oceanic as any verb which:

a) took one of the transitive suffixes; and/or
b) took a pronominal clitic to index the person and number of the direct object

They state that while most transitive verbs exhibited both these features, there was a small class of verbs in Proto Oceanic took the object clitics directly with no intervening transitive suffix[8]. Thus Proto Oceanic had the same two structures of transitive verb as described in section 3.2.1 for modern languages:

(i) *V-i=OBJ; verbs which took the transitive suffix *-*i* followed by an object clitic, such as**inum-i=a* (drink-TR=3sg) 'drink it' and **puat-i=a* (carry-TR=3sg) 'carry it'; and
(ii) *V=OBJ; verbs which took the object enclitic directly, such as **pani=a* (give=3sg) 'give to him' and **wase=a* (distribute=3sg) 'distribute it'.

It was noted in section 3.2.1 that in some languages the presence of an *-*i* reflex with the transitive form of a verb is lexically-determined and dependent entirely on the particular verb stem. In other languages, such as Motu, Roviana and Ganoqa the presence of an *-*i* reflex is determined by the phonological structure of the verb stem. The question to be considered in this section is what can be determined about the distribution of *-*i* in Proto Oceanic. Was it lexically-determined as in most modern languages, or was there some other feature or features which conditioned its distribution?

This question is examined in two ways. The first is to use lexical reconstruction. Hypotheses about what conditioned the presence of *-*i* can be made on the basis of patterns that are apparent from comparison of the reconstructions of intransitive and transitive verb forms. The second method is to examine the distribution of modern reflexes of*-*i* to determine if any patterns of distribution are reconstructable.

[8] Pawley and Reid (1979) refer to two transitive suffixes, meaning *-*i* and **akin[i]*. Only *-*i* will be considered in this chapter. See Chapters 4 and 5 for a discussion of **akin[i]*.

3.3.1.1 EVIDENCE FROM LEXICAL RECONSTRUCTION

The reconstruction of the intransitive and transitive forms of a number of verbs does indeed reveal a pattern in the distribution of Proto Oceanic **-i*. Table 3.9 gives those verbs which can be reconstructed as having taken **-i* and Table 3.10 gives those verbs which can be reconstructed as having taken the object enclitics directly[9]. From these reconstructions it appears that the distribution of the Proto Oceanic transitive suffix **-i* was phonologically conditioned. Verbs that had a final consonant appear to have taken the transitive suffix, whereas verbs that had a final vowel appear to have taken the object enclitic directly.

Table 3.9: Proto Oceanic verbs which took **-i*

intransitive forms		transitive forms	
*bitiŋ	*stone oven*	*bitiŋ-i-	*cook in stone oven sth*
*garas	*scrape, peel, be scraped, peeled*	*garas-i-	*scrape, peel sth*
*inum	*drink*	*inum-i-	*drink sth*
*kaput	*wrap, cover*	*kaput-i-	*wrap, cover sth*
*kaʀat	*bite*	*kaʀat-i-	*bite sth*
*kinit	*pinch, pluck/pick (plants).*	*kinit-i-	*pinch, pluck/pick (plants) sth*
*patuʀ	*weave, plait*	*patuʀ-i-	*weave, plait sth*
*paus	*weave, plait*	*paus-i	*weave, plait sth*
*pilos	*twist*	*pilos-i-	*twist sth*
*puat	*carry*	*puat-i-	*carry sth*
*qatuŋ	*strike*	*qatuŋ-i-	*strike sth*
*ʀa(b,p)us	*hit, kill*	*ʀa(b,p)us-i-	*hit, kill sth*
*salap	*sweep, broom*	*salap-i-	*sweep sth*
*saqit	*sew*	*saqit-i-	*sew sth*
*silip	*enter bush, hunt*	*silip-i-	*to go into sth*
*solat	*carry*	*solat-i-	*carry sth*
*susuk	*pierce, be pierced*	*susuk-i-	*pierce sth*
*tirop	*look*	*tirop-i-	*look at sth*

[9] The supporting data for the reconstructions are given in Appendix 2. The reconstructions of intransitive and transitive pairs, such as those in Table 3.9, are generally based on intransitive and transitive pairs of cognates in widely-distributed languages. In some cases evidence for such pairs of reconstructions comes from cognates of each form occurring in different languages.

Table 3.10: Proto Oceanic verbs which took the object enclitics directly

intransitive forms		transitive forms	
*kati	*to bite*	*kati-	*to bit sth*
*pani	*to give*	*pani-	*to give to*
*papi	*to cook in earth oven*	*papi-	*cook dth. in earth oven*
*piro	*to twist together, wring*	*piro-	*to twist together, wring sth*
*poli	*to buy, barter*	*poli-	*to buy, barter sth*
*ra(b,p)u	*to hit, spear*	*ra(b,p)u-	*to hit, spear sth*
*suki	*to pierce*	*suki-	*to pierce sth*
*wase	*to be distributed, distribute*	*wase-	*to distribute, divide*

None of the vowel-final verbs in Table 3.10 end in an **-a* vowel. Table 3.11 gives reconstructions of three Proto Oceanic verbs that ended in **-a*. It is not always enitrely clear how the transitive forms of such verbs should be reconstructed. The evidence that such verbs did take **-i* is that often the final vowel of the modern reflexes is *e*, apparently reflecting a merger of the sequence **a-i*. For example, the Gumawana (PT) reflexes of **kita* 'to see, be seen' are the intransitive form *gita* 'to see' and the transitive form *gite* 'to see sth', suggesting that there was originally an **-i* suffix on the transitive form in Proto Oceanic. With other reflexes of these forms the final-vowel change has occurred with both the intransitive and transitive forms. For example, the Paamese (SO) reflexes of **kila* 'to know' are the intransitive form *kile* 'be knowledgeable' and the transitive form *kile-* 'to know sth'. With forms such as these it appears that the transitive form has changed from **kila-i-* to *kile-*, which has then been interpreted as the intransitive stem. On the whole, the supporting data for the reconstructions in Table 3.11 suggest that such forms did in fact take the transitive suffix **-i*. Thus the earlier hypothesis is modified, proposing that consonant-final and **a*-final verbs took the transitive suffix **-i*, and that other vowel-final stems took the object enclitics directly.

Table 3.11: Verbs ending in **-a* in Proto Oceanic

intransitive forms		transitive forms	
*kila	*to know, be knowledgeable*	*kila-i-	*to know sth*
*kita	*to see, be seen*	*kita-i-	*to see sth*
*soka	*to pierce, be pierced*	*soka-i-	*to pierce sth*

Putting aside **a*-final verbs for the moment, the difference between verbs which took the **-i* suffix and verbs which took the object enclitics directly can be described as one of syllable structure. The transitive form of verbs which took the object clitics directly were disyllabic, that is they had the form CVCV, whereas the transitive form of verbs with the transitive suffix **-i* were trisyllabic, that is CVCVC-i or CVCVCV with the final vowel as **-i*. When described in this way the distribution of **-i* can be seen to explain some anomalies of particular verbs. For example, Proto Oceanic **kani* 'eat' reflected an earlier Proto Malayo-Polynesian form **kaʔen-i*, with the final **-i* morpheme. However, this morpheme boundary is not reconstructable for Proto Oceanic, where **kani* was apparently perceived as a single morpheme. The loss of the morpheme boundary probably occurred because in its form **kani-* 'eat sth' followed the syllabic pattern of vowel-final verbs which took the object enclitics directly, and thus by analogy it was reanalysed as such.

This proposed distribution of Proto Oceanic **-i* can also be used to explain an unusual paradigm of verb forms noted by Blust (1977a). Table 3.12 gives Blust's (1977a) reconstructions of a number of Proto Austronesian verbs and the Proto Oceanic forms that reflect them[10]. Blust (1977a) proposes that certain Proto Oceanic unreduplicated disyllabic stems ending in **-i* are cognate with reduplicated Proto Austronesian stems. Column 1 in Table 3.12 gives the Proto Austronesian reconstructions and column 2 the Proto Oceanic reconstructions. Also reconstructable for Proto Oceanic are reduplicated intransitive stems without the **-i* suffix (column 3) and reduplicated transitive stems with the **-i* suffix (column 4). An innovation which defines Proto Oceanic is the loss of syllable-final consonants word-medially. Thus words of the structure $*CVC_1C_2VC$ in Proto Malayo-Polynesian became $*CVC_2VC$ in Proto Oceanic. This is the reason for the difference between the Proto Austronesian forms in column 1 and the Proto Oceanic forms in Column 3. For example, Proto Austronesian **suksuk*

[10] The orthography of these Proto Oceanic reconstructions have been changed to match that used in the rest of this thesis. For example, Blust's **kad-i-* has been changed to **kar-i-*.

regularly becomes Proto Oceanic **susuk* through loss of the final **k* of the first syllable. This changed also occur in some non-reduplicated stems, and Proto Malayo-Polynesian **beRŋi* 'night' became Proto Oceanic **boŋi* (Ross 1998: 17).

Table 3.12: Proto Oceanic reflexes of Proto Austronesian reduplicated verb stems

PAn	POc			*gloss*
1	2	3	4	
*butbut/*putput	*put-i	*puput	*puput-i	*pluck*
*gasgas/*kaskas	*kas-i	*kakas	*kakas-i	*scrape*
*gusgus	*kus-i	*kukus	*kukus-i	*rub*
*karkar	*kar-i	*kakar	*kakar-i	*scratch up*
*kepkep	*kop-i	*kokop	*kokop-i	*grasp*
*kuDkuD	*kur-i	*kukur	*kukur-i	*rasp, file*
*luslus	*lus-i	*lulus	*lulus-i	*slip off*
*ŋasŋas	*ŋas-i	*ŋaŋas	*ŋaŋas-i	*chew*
*pakpak	*pak-i	*papak	*papak-i	*slap*
*pespes	*pos-i	*popos	*popos-i	*squeeze*
*sepsep	*sop-i	*sosop	*sosop-i	*suck*
*suksuk	*suk-i	*susuk	*susuk-i	*pierce*
*testes	*tos-i	*totos	*totos-i	*tear*
*TakTak	*tak-i	*tatak	*tatak-i	*hit*
*TukTuk	*tuk-i	*tutuk	*tutuk-i	*pound*

(data from Blust 1977a: 9-10 & 27)

Blust (1977a: 10-12) proposes that the Proto Oceanic unreduplicated forms ending in **-i* are reduced reflexes of the Proto Austronesian reduplicated forms, with the addition of the transitive suffix **-i*. The reduction from a reduplicated form to the non-reduplicated form can be explained in terms of a phonological change of haplology, motivated by a drift towards the disyllabic root shape canonical in Austronesian languages. In Proto Oceanic, then, there was a derivational relationship between intransitive reduplicated forms, such as **susuk* 'pierce', and unreduplicated transitive forms, such as **suk-i* 'pierce sth', and it was this relationship which Blust (1977a: 32-33) suggests led to the development of detransitivising reduplication in Oceanic languages. Also reconstructable for Proto Oceanic are reduplicated forms with the **-i* suffix, such as **susuk-i-* 'pierce

sth', and Blust (1977a: 27) proposes that this initial syllable was either optionally or obligatorily present with the suffixed form. Under this analysis, an independent change in many Oceanic languages has been the loss of the morpheme boundary between the verb stem and **-i* with the unreduplicated forms, reanalysing Proto Oceanic **suk-i* (pierce-TR) 'pierce sth', as *suki-* 'pierce sth'.

However, as there appears to be no evidence of such a morpheme boundary with reflexes of these verbs in modern Oceanic languages, I would suggest that it cannot be reconstructed for Proto Oceanic. Rather the loss of the morpheme boundary with unreduplicated forms must have occurred at some pre-Proto Oceanic stage. Proto Oceanic would have had the following three types of forms:

(i)	*susuk	*pierce*
(ii)	*susuk-i-	*pierce sth*
(iii)	*suki-	*pierce sth*

That is, a reduplicated intransitive form, inherited from the reduplicated form in Proto Austronesian, a reduplicated transitive form with the transitive suffix **-i*, and a non-reduplicated form with a final **i* vowel that took the object enclitics directly. The original morpheme boundary between the unreduplicated verb stem and the transitive suffix **-i*, as in pre-Proto Oceanic **suk-i-* (pierce-TR) 'pierce sth' was lost prior to Proto Oceanic. This change was motivated by the fact that forms like pre-Proto Oceanic form **suk-i=a* (pierce-TR=3sg) 'pierce it' had the same syllabic structure as vowel-final verbs which took the object enclitics directly, such as **wase=a* (distribute=3sg) 'distribute it', and was reanalysed as such. The third form, the reduplicated form with the suffix **-i*, may have been a subsequent development, becoming the transitive form of the reduplicated forms as the derivational relationship between the unreduplicated form and the intransitive reduplicated form was lost.

3.3.1.2 Evidence from modern languages

The distributions of reflexes of **-i* in several modern languages also provide evidence supporting the hypothesis that Proto Oceanic **-i* occurred with consonant-final and **a*-final verb stems, but not with other vowel-final verb stems.

3.3.1.2.1 OBJECT MARKING IN MANAM

In Manam the Proto Oceanic transitive suffix *-*i* has been reanalysed as a 3rd person object suffix, indexing both singular and particular types of plural O arguments. Tendencies in the distribution of the different allomorphs of the 3pl object suffix provide support for the hypothesised phonological conditioning of the Proto Oceanic transitive suffix *-*i*. Table 3.13 shows the Manam object suffixes. A 3sg O argument is indexed by -*i* or zero, and a 3pl O argument by one of several allomorphs, determined by the type of participant indexed and the verb stem. It is the different classes of transitive verbs based on the allomorphs of the 3pl object suffix which appear to reflect the original distribution of Proto Oceanic *-*i*.

As can be seen from Table 3.13, 3pl O arguments are indexed by -*di* if they denote higher animal participants, and by -*di*, -*i* or zero if they denote something that is not a higher animal. The category of higher animals includes humans, along with pigs, dogs, birds, goats, horses and other large animals. While humans are always treated as higher animals, the non-human animals are always treated as higher animals when domestic, but only optionally so when wild (Lichtenberk 1983: 262-263). The category of non-higher animals includes everything else, that is all animates not considered to be higher animals and inanimates as well. It is the 3pl object suffixes that index non-higher animals which are of most interest here. Two of these forms, -*i* and zero, are the same as the 3sg object suffix. This is apparently because the 3sg object suffix has come to index plural non-higher animal O arguments. Such a broadening in function can be explained in terms of the non-higher animals being less individuated and there being less need to indicate number for them (as opposed to higher animals and domestic ones).

Table 3.13: Manam object markers

	1		2	3	
	incl.	excl.			
SG		-a	-iʔo (ʔo)	-i	
				-Ø	
PL	-ʔita	-ʔama	-ʔamiŋ	-i (-Ø)	(Class I - non-higher animals)
				-Ø	(Class II - non-higher animals)
				-di	(Class III - non-higher animals)
				-di	(higher animals)

(Lichtenberk 1983: 122)

Three classes of transitive verbs can be distinguished on the basis of the form of the 3pl object suffix used to index a non-higher animal O argument. The membership of these verb classes is not entirely predictable, but a few partial generalisations can be made (Lichtenberk 1983: 131-132):

a) verbs without thematic consonants belong with higher-than-chance frequency to class III, taking the *-di* allomorph;
b) verbs that do take thematic consonants belong with higher-than-chance frequency to class I or class II, taking either *-i* or zero;
c) verbs that contain the transitivising suffix *-aʔ* always belong to class I, taking the *-i* allomorph, and the addition of this suffix to a transitive verb may lead to a change in class; and
d) loan words from Tok Pisin (and also German) belong to class III, taking the *-di* allomorph. This is in spite of the fact that most loan verbs end in a consonant, especially those from Tok Pisin which usually contain the Tok Pisin transitivising suffix *-im*.

Examples (25) to (32) demonstrate the allomorphy of the 3pl object suffix when indexing non-higher animal participants. The verb *bazi* 'carry' in (25) is a class III verb which does not have a thematic consonant and takes *-di* to index a 3pl O argument.

25) ʔái u-bázi-di
stick 1sg.RL-carry-3pl.OBJ
I carried the sticks.

(Lichtenberk 1983: 125)

The verb *saba* 'hew' in (26) is a class I form which has a thematic consonant and takes *-i* to index a 3pl O argument.

26) ʔáti di-sa=sabá-r-i
canoe 3pl.RL-REDUP-hew-THC-3pl.OBJ
They are hewing canoes.

(Lichtenberk 1983: 609)

The 3pl object suffix *-i* optionally becomes zero after a nasal-final stem. Thus in (27) the verb *rara* 'to warm up' can take *-i* to index a 3pl non-higher animal O argument or it can occur with a zero 3pl marker.

27) íʔa u-rará-ŋ-i or u-rará-ŋ- Ø
fish 1sg.RL-warm.up-THC-3plO 1sg.RL-warm.up-THC-3plO
I warmed up the fish.

(Lichtenberk 1983: 130)

In example (28) the verb *rozo* 'to plug' occurs with a thematic consonant and the *-i* form of the 3sg object suffix. That this form is a class II verb is demonstrated by (29) where a 3pl non-higher animal participant is indexed by zero. With class II verbs the thematic consonant does not occur before the zero form of the 3pl object suffix. This is because thematic consonants do not occur in word-final position, and thus do not occur when the O argument is indexed by zero.

28) ʔáti di-rózo-ŋ-i
canoe 3pl.RL-plug-THC-3sg.OBJ
They plugged up the canoe.

(Lichtenberk 1983: 130)

29) ʔáti di-rózo-Ø
canoe 3pl.RL-plug-3pl.OBJ
They plugged up the canoes.

(Lichtenberk 1983: 131)

In (30) the verb *rozo* 'to plug' occurs with the transitive suffix *-aʔ* and becomes a class I verb taking *-i* to index a 3pl non-higher animal participant.

30) ʔái di-rozo-ŋ-áʔ-i
stick 3pl.RL-plug-THC-TR-3pl.OBJ
They plugged the sticks in (i.e. they used the sticks as plugs).

(Lichtenberk 1983: 131)

The verb *stretin* 'to straighten' in (31) is a loan from Tok Pisin and thus takes the *-di* allomorph of the 3pl object suffix. The verb *mitiŋ* 'to hold a meeting' in (32) is also a loan from Tok Pisin, but because it takes the transitivising suffix *-aʔ*, it becomes a class I verb and takes *-i* to index the O argument.

31) dináu go-stretîn-di
debt(TP) 2sg.IRR-straighten(TP)-3pl.OBJ
Pay (lit. straighten) your debts!

(Lichtenberk 1983: 623)

32) raʔána di-mitiŋ-áʔ-i
what 3pl.RL-hold.meeting(TP)-TR-3pl.OBJ
What did they talk about at the meeting? (lit. what did they hold the meeting about?)

(Lichtenberk 1983: 623)

The distribution of the 3pl non-higher animal object suffixes *-i* and *-di* appears to reflect the original distribution of Proto Oceanic **-i* as a transitive suffix. In the previous section it was proposed that Proto Oceanic **-i* occurred with verb stems that were consonant-final and **a*-final, and that other vowel-final verb stems took the object enclitics directly. In Manam the 3pl allomorph *-di* generally occurs with verb stems without thematic consonants, and the *-i* allomorph generally occurs with verb stems with thematic consonants. As described earlier, thematic consonants often reflect Proto Oceanic stem-final consonants which have been lost in word-final position, but retained when "protected" by a suffix. Thus, in Manam the form *-di*, a reflex of an original object

enclitic[11], occurs with verbs stems without thematic consonants, reflecting the original sequence of vowel-final verb plus object enclitic. The form *-i*, a reflex of the Proto Oceanic transitive suffix, occurs with verb stems with thematic consonants, reflecting the original sequence of consonant-final verb plus transitive suffix. The development of each type of verb from Proto Oceanic to modern Manam is demonstrated in Table 3.14, with the forms **garas* 'to scrape, be scraped' and **wase* 'to distribute, be distributed'.

Table 3.14: Development of the Manam 3pl object suffix allomorphs

		consonant-final stem		vowel-final stem	
		3SG	3PL	3SG	3PL
I: POc	INTR	*garas		*wase	
	TR	*garas-i=a	*garas-i=ra	*wase=a	*wase=ra
II: post-POc	INTR	*gara		*wase	
	TR	*gara-**s**-i=a	*gara-**s**-i=ra	*wase=a	*wase=ra
III: WOc	INTR	*gara		*wase	
	TR	*gara-s-i=a	*gara-s-i=**dri**	*wase=a	*wase=**dri**
IV: pre-Manam	INTR	*gara		*wase	
	TR	*gara-s-i=a	*gara-s-i=dri	*wase=a	*wase=dri
			*gara-s-i=**a**		*wase=**a**
V: pre-Maman	INTR	*gara		*wase	
	TR	*gara-s-**i**	*gara-s-i=dri	*wase=**Ø**	*wase=dri
			*gara-s-**i**		*wase=**Ø**
VI: Manam	INTR	gara		ware	
	TR	gara-s-i	gara-s-idi	ware-i	ware-di
			gara-s-i		ware-Ø, ware-**di**

[11] Manam 3pl *-di* is a reflex of the Western Oceanic 3pl object enclitic **=dri*, which replaced the original Proto Oceanic form **=ra*. There has also been a change in the status of the object markers. In Proto Oceanic they were probably enclitics, whereas in Manam they are suffixes.

Stage I represents the Proto Oceanic system in which a consonant-final verb, such as **garas* 'to scrape, be scraped', when used transitively took the transitive suffix **-i* followed by an object enclitic, and vowel-final verbs, such as **wase* 'to distribute, be distributed', took the object enclitic directly. The 3sg object enclitic in Proto Oceanic was **=a* and the 3pl object enclitic was **=ra*. Stage II, post-Proto Oceanic, represents the system after the loss of word-final consonants. This change meant that the final consonant was lost from stems when used intransitively, but retained with the transitive form because of the following suffix. Stage III represents the Western Oceanic innovation in which the original 3pl object enclitic **=ra* was replaced by **=dri*. At some pre-Manam stage, represented by stage IV, a contrast between the indexing of higher animal and non-higher animal plural O arguments developed. At this stage the 3sg object marking came to index plural O arguments which denoted non-higher animals. Stage V, also pre-Manam, represents the loss of the 3sg object enclitic **=a*. This form was apparently lost due to a final-vowel deletion rule, as it still occurs in modern Manam as a buffer element between 3sg *-i* and following morphemes. This change resulted in vowel-final stems being unmarked by an object enclitic for 3pl non-higher animal participants. With original consonant-final stems the transitive suffix **-i* was subsequently reanalysed as an object marker. Stage VI, which represents modern Manam, proposes that the original 3pl object marker *-di* came to be used with original vowel-final stems to index 3pl non-higher animal participants, filling an unmarked slot. As can be seen from (33), *ware* 'to count' in modern Manam can occur with either *-di* or zero to index a 3pl non-higher animal O argument[12]. Example (34) shows the modern usage of *gara* 'to scrape'.

33) nîu i-wáre-di or i-wáre-Ø
coconut 3sg.RL-count-3pl.OBJ 3sg.RL-count-3pl.OBJ
He counted coconuts.

(Lichtenberk 1983: 132)

34) moarépi i-ga=gará-s-i
sweet.potato 3sg.RL-REDUP=scrape-THC-3pl.OBJ
She is scraping sweet potatoes.

(Lichtenberk 1983: 603)

This suggested development of the Manam 3pl non-higher animal object suffixes does not fully explain class II verbs with which the 3pl object suffix for lower animals is

[12] Lichtenberk (1983: 132-133) presents data that suggest that Manam is moving towards a system in which *-di* will be the predominant 3pl object marker.

zero. Like class I verbs, class II verbs are more often that not verbs that take a thematic consonant. Originally such verbs would have taken the transitive suffix *-*i* suggesting that class II verbs may have developed from class I forms which take -*i* to index 3pl non-higher animal O arguments. Further research into the history of the Manam object marking system would be needed in order to make any clear hypotheses about the class II verbs.

It should be noted again that the choice of 3pl lower animal object suffixes does not strictly follow the generalisations mentioned earlier. For example, there are some verbs which do not take a thematic consonant, but which take the class I object suffix -*i*, as shown in (35) , and there are verbs which take a thematic consonant, but which take the class III object suffix -*di*, as shown in (36). Interestingly, the verbs in (35) and (36) are ones whose histories do not appear to be reconstructable. It may be that these verbs are "exceptional" simply because they are not inherited forms and thus the object marking does not reflect an original system. Equally likely is that some verbs have shifted between classes.

35) ʔaláwa ʔu-lele=lé-i
cane 2sg.RL-look.for=RPL-3pl.OBJ
ŋé-di muri-ŋ di-éno
RES.PRO-3pl.AD space.behind-2sg.AD 3pl.RL-be.located
The canes you are looking for are behind you.
(Lichtenberk 1983: 522)

36) ʔaniŋa u-boadú-n-di
food 1sg.RL-be.sufficient-THC-3pl.OBJ
I provided enough food (lit: I made the food sufficient).
(Lichtenberk 1983: 137)

In summary, the indexing of 3pl non-higher animal O arguments in Manam provide support for the hypothesis that consonant-final stems in Proto Oceanic took the transitive suffix *-*i* whereas vowel-final stems took the object enclitics directly. In general Manam verbs which take thematic consonants take the -*i* object marker, reflecting the Proto Oceanic sequence of a consonant-final stem followed by the transitive suffix *-*i*. Manam verbs that do not take thematic consonants generally take the -*di* object marker, reflecting the Proto Oceanic sequence of a vowel-final verb stem followed directly by the object enclitics.

3.3.1.2.2 THE TRANSITIVE ENCLITIC IN GANOQA

The distribution of the transitive enclitic *=i* in Ganoqa appears to directly reflect the proposed distribution of Proto Oceanic **-i*. As described in section 3.2.1 in Ganoqa *=i* replaces the final vowel of polysyllabic verb stems and occurs following disyllabic verb stems ending in *-a*. Other disyllabic verb stems take the object enclitics directly. Examples of this distribution were given in Tables 3.2 and 3.3.

Ganoqa polysyllabic verb stems often have the structure $CVCV_XCV_X$, where the last two vowels are the same, for example *golomo* 'to hide' and *surana* 'to go aboard'. Historically, such forms reflect original consonant-final stems to which an echo vowel has been added, thus avoiding a closed final syllable. For example, Proto Oceanic **kaRat* 'to bite' is reflected in Ganoqa as *garata* 'to bite'. Table 3.15 shows the development of the intransitive and transitive forms of original consonant-final stems in Ganoqa. In stage I, Proto Oceanic, such verb stems were unmarked in their intransitive forms and took the suffix **-i* in their transitive forms. In stage II, pre-Ganoqa, an echo vowel was added to consonant-final words, thus affecting the intransitive form, but not the transitive one. This led to the Ganoqa system in which the final vowel of the intransitive form does not occur with the transitive stem that takes *=i*, forming a synchronic rule in which the transitive enclitic *=i* replaces the final vowel of polysyllabic verb stems[13].

Table 3.15: Development of Ganoqa polysyllabic verbs

	intransitive form		transitive form	
Stage I: POc	*kaRat	*to bite*	*kaRat-i-	*to bite sth*
Stage II: pre-Ganoqa	*kaRata	*to bite*	*kaRat-i-	*to bite sth*
Stage III: Ganoqa	garata	*to bite*	garat=i-	*to bite sth*

Ganoqa disyllabic verb stems generally have the structure CVCV and reflect original vowel-final verb stems of the same shape. In Ganoqa disyllabic verbs take the object enclitics directly, except forms which end in an *-a* vowel, which take the transitive enclitic.

[13] Kettle (2000: 136) analyses *=i* in Ganoqa as an enlictic. Although there is some evidence that Proto Oceanic **-i* may also have been an enclitic, the status of **-i* as a suffix or an enclitic needs further research. And so Proto Oceanic **-i* will be labelled a suffix, following previous reconstructions. See also section 3.3.3.

Thus, the Ganoqa system provides strong support for the hypothesis presented about Proto Oceanic *-*i*. In Ganoqa reflexes of original consonant-final and **a*-final verb stems take *=i* and reflexes of other vowel-final verb stems take the object enclitics directly.

The evidence of Ganoqa disyllabic forms is particularly useful. As mentioned in the previous subsection, whether **a*-final verbs took **-i* is not entirely clear on the basis of lexical reconstruction. The Ganoqa data suggest that such forms did indeed take **-i*. Further evidence for this hypothesis is found in Motu, where, as described in section 3.2.1, all verbs are vowel-final and only those ending in *a* take the transitive suffix *-i*.

3.3.1.2.3 FIJIAN TRANSITIVE ENDINGS

Geraghty's (1983) examination of transitive verb endings in Fijian languages also provides support for the hypothesis presented concerning the distribution of Proto Oceanic **-i*. Geraghty (1983: 261-262) postulates the following series of transitive endings for Proto Eastern Oceanic, including the final segment of the stem, the transitive suffix **-i* and the 3sg object marker **-a*: **-C-i-a*, **-i-i-a*, **-e-i-a*, **-a-i-a*, **-o-i-a*, **-u-i-a*. Table 3.16 shows the way in which these endings are reflected in Fijian languages from different areas of Fiji.

Table 3.16: Verb endings in Fijian languages after Geraghty (1983: 262)

PEOc	*-C-i-a	*-i-i-a	*-e-i-a	*-a-i-a	*-o-i-a	*-u-i-a
Western Viti Levu	-Cia	-ia	-ē	-ā	-ō	-ia
Gone Dau	-Cia	-ia	-ē	-ā	-ō	-ia
Northeast Vanua Levu	-Ca	-ia	-ea	-ā	-oa	-ua
Northeast Viti Levu	-Cia	-ia	-ea	-ā	-oya	-uya
Southeast Viti Levu	-Ce	-e	-ā	-ā	-ā, -oya	-ue
Bua	-Ca	-ia	-ea	-aya	-oya	-ia
West & central Vanua Levu	-Ca	-ia	-ea	-aya	-oya	-uya
Lau, Kadavu, Southeast Vanua Levu, Standard Fijian	-Ca	-ia	-ea	-ā	-oya	-uya

As can be seen these "data show that there is practically no irrefutable evidence in Fiji for the presence of **-i* after vowel-final bases" (Geraghty 1983: 261-262). The phonological shape of modern verb endings in Western Viti Levu, Gone Dau and Northeast Vanua Levu suggest that **-i* did not occur with vowel-final verb stems. Rather the transitive endings in these languages suggest the reconstruction of **-ia*, **-ea*, **-ā*, **-oa*, **-ua*. That is, object suffixes attached directly to the verb stem with no intervening **-i*. The Western Viti Levu and Gone Dau verb endings *-ia* reflecting an earlier **-ua* are problematic. They suggest that the **u* has been fronted because of a following **-i* as would have occurred if a *u*-final verb was followed by the transitive suffix **-i*. The *-ya* endings which occur following non-front vowels in some Eastern Fijian languages may also reflect the transitive suffix **-i*. However, it is possible that they reflect the 3sg independent pronoun **ia*. The replacement of object markers by independent pronouns is a change that has taken place with other person and number categories in Eastern Fijian, and the *-ya* endings for 3sg may also be the result of such a change. The modern verb endings which reflect consonant-final verb stems appear to reflect the transitive suffix **-i*. A sequence comprising the transitive suffix **-i* is clearly reflected in Western Viti Levu, Gone Dau and Northeast Viti Levu. In Southeast Viti Levu the transitive endings of such forms are *-Ce*. However, it is possible that a change from **-i-a* to *e* is a regular one as it has also occurred with verb stems ending in **-i* and taking the 3sg object marker **=a*. The only apparent irregular development is the loss of **-i* with the *-Ca* endings in some Eastern Fijian languages. However, Geraghty (1983: 263-266) presents other data that show parallel changes.

These facts about the history of the Fijian languages seem to support the hypothesis put forward here that the Proto Oceanic transitive suffix **-i* occurred with consonant-final verb roots, but not with vowel-final ones.

3.3.2 FUNCTIONS OF **-I*

Proto Oceanic **-i*, like its modern reflexes, had both causative and applicative uses. With Undergoer subject verbs it had a causative function and with Actor subject verbs it had an applicative function. Pawley (1973: 127-128) reconstructs the types of participants introduced as the O argument of verbs with **-i*, and the data presented in more recent descriptions of modern languages add extra support to his reconstructions. Pawley (1973) proposes that **-i* introduced different types of participants with different types of verbs:

(i) With motion and posture verbs *-*i* introduced a location or goal role;
(ii) with bodily process verbs *-*i* also introduced a location role;
(iii) with verbs of speaking *-*i* introduced an addressee role; and
(iv) with verbs of emotional and psychological states *-*i* introduced a stimulus role.

With some verbs denoting process-action events *-*i* introduced a patient participant, however, many such forms were Undergoer subject verbs, with which *-*i* would have had a causative use.

As *-*i* was phonologically conditioned, and occurred with consonant-final and **a*-final verb stems, it should be noted that with other vowel-final verbs apparent functions of *-*i* were carried out simply by the addition of the object enclitics.

3.3.3 *-*I* AS A SUFFIX OR ENCLITIC

Traditionally Proto Oceanic *-*i* and its reflexes have been called transitive suffixes, but there is evidence that some reflexes of *-*i* are actually enclitics. For example, in Kwamera (SO) there is a transitive marker *=ia* which occurs before a nominal or pronominal O argument. If the O argument is a singular pronoun it is expressed as part of a portmanteau form. Thus *=ira* indicates transitivity and a 3sg O argument. Lindstrom and Lynch (1994: 14-15) suggest that these transitive markers are enclitics, rather than suffixes as they occur following an adverb when one is present as in (37).

37) iak-esi-pen suatuk m-iau arapiov **ira**
1EXC-follow-TO:3 road ES-run quick **TR:3sg**
I follow the road, running quickly along it.
(Lindstrom & Lynch 1994: 15)

Kettle (2000: 136) presents the same argument for the clitic status of *=i* in Ganoqa. That is, *=i* is attached not to verb stems, but to the verb phrase as a whole, occurring on the final element of the verb phrase be it a verb or adverb. This is demonstrated in (38) where *=i* is attached to the adverb *v-iker* 'badly'.

38) qa aru v-iker=i=a ara na Union Jack
S:1sg.R hold CAUS-be.bad=TR=OBJ.3sg D:1sg DET Union Jack
I lost the Union Jack (lit: I held it badly)

(Kettle 2000: 131)

Examples like (39) suggest a similar analysis of the applicative suffix *-i* in Saliba. That is, it is attached to the final element of the verb complex rather than to individual verb stems. However, Margetts (1999: 105-107) demonstrates that morphologically *-i* has scope over only the stem to which it is attached and does not transitivise the entire construction. The final slot of a complex verb does not determine the transitivity of the construction, but rather agrees in transitivity with the preceding stem or stems. Thus stems occurring in final position with *-i* can only follow initial transitive stems.

39) ya-deuli-kasaya-i-di
1sg-wash-in.vain-APP-3pl.O/P
I washed them in vain.

(Margetts 1999: 105)

It is beyond the scope of this thesis to examine verb complexes with more than one verb stem or verb stems with modifers. It is probable that as in modern languages **-i* was attached to the final element of the verb complex. However, the analysis of Saliba presented in Margetts (1999) shows that detailed research of this issue is needed to determine the status and scope of **-i* and its reflexes.

3.4 Summary of Proto Oceanic **-I*

In summary, Proto Oceanic **-i* occurred with transitive forms of consonant-final and **a*-final verb stems. With other vowel-final verbs the object enclitics were attached directly to the verb stem. As such **-i* (and/or the object enclitics) derived transitive verb forms from intransitive ones, and also occurred with transitive forms derived with other transitivising devices, such as the causative prefix **pa[ka]-* and transitivising **akin[i]*[14]. As a transitiviser in its own right, **-i* (and/or the object enclitics) had both causative and applicative uses, determined by whether the verb stem was an Undergoer subject form or an Actor subject form, respectively. In its applicative use **-i* introduced as the O argument participants with the roles of location, goal, addressee, stimulus and patient. As

[14] It is shown in Chapter 5 that the final **-i* of **akin[i]* was in fact the transitive suffix **-i*.

will be seen in Chapter 5 this usage was in contrast with the applicative uses of **akin[i]*, which introduced different types of participants.

4 *reflexes and cognates of *akin[i]*

4.1 INTRODUCTION

This chapter and the following one are concerned with a form which is reconstructed for Proto Oceanic as **akin[i]*, and is reflected in a wide range of Oceanic languages. Non-Oceanic cognates of **akin[i]* are found in languages of Indonesia, reflecting the slightly different Proto Malayo-Polynesian form **akən*, of which the expected but unattested Proto Oceanic cognate would be ***akon*.

The present chapter looks at the modern reflexes and cognates of **akin[i]* and their functions. The chapter comprises three major parts. First, the modern reflexes of **akin[i]* in Oceanic languages are considered. Second, Oceanic forms reflecting an apparent form **-ni* are described. These forms are included here because they have been thought to be reduced reflexes of **akin[i]*, an issue which will be looked at in the following chapter. The third part describes the apparent cognates of **akin[i]* in non-Oceanic Austronesian languages. The findings of this chapter then become the starting point of the discussion of possible functions of Proto Oceanic **akin[i]* in the following chapter. Such detailed descriptions of **akin[i]* reflexes and cognates as given here are necessary in discussing the history of this form because the modern morphemes show an array of functions and forms and any hypothesis about the proto-form needs to be able to account for these.

4.2 FUNCTIONS OF **AKIN[I]* REFLEXES IN OCEANIC LANGUAGES

Apparent reflexes of **akin[i]* in Oceanic languages have a range of different functions. This section is divided into five subsections, each one describing reflexes of **akin[i]* which show a particular type of function:

a) transitivising (section 4.2.1);

b) detransitivising (section 4.2.2);

c) use with reciprocal prefixes (section 4.2.3);
d) use as verbal prepositions (section 4.2.4); and
e) use as trace elements (section 4.2.5).

4.2.1 THE TRANSITIVISING FUNCTION

Transitivising reflexes of **akin[i]* often have both causative and applicative functions determined by whether the verb to which they are attached is an Undergoer subject or an Actor subject verb. These two transitivising uses of **akin[i]* reflexes are the same as those found with reflexes of **-i* and indeed reconstructed for Proto Oceanic **-i*. The causative uses of **-i* reflexes and **akin[i]* reflexes appear to be lexically-determined. In some languages, such as Saliba (PT), the same is true of the difference between the applicative uses of **-i* and **akin[i]* reflexes. However, as described below in other languages the difference between the applicative uses of reflexes of **-i* and **akin[i]* is in the semantic role of the argument expressed as O.

In modern languages such as Yapese, Manam (NNG), Motu (PT), Longgu and Kwaio (SES) and Boumaa Fijian **akin[i]* reflexes have both applicative and causative uses. In North-East Ambae (SO) there are two suffixes which reflect **akin[i]*, one with a causative function and one with an applicative function. In Tawala (PT) the reflex of **akin[i]*, the transitivising suffix *-ge*, has only the applicative function. I am not aware of any language in which an **akin[i]* reflex has only the causativising function.

In Manam the transitivising suffix *-a?* has both applicative and causative functions, determined by the verb stem to which it is attached. Table 4.1 gives examples of verbs that are transitivised with *-a?*. Under (A) are those with which *-a?* has a causative function. For example, the verb *ado* 'be straight' takes a patient participant expressed as S, as in (1). In (2) this verb occurs with the suffix *-a?*. Here the patient participant is expressed as O and an agent participant has been added as A.

1) [ʔatéʔa]$_S$ i-ádo
ground 3sg.RL.-be.straight
The ground is level.
(Lichtenberk 1983: 218)

2) [ʔaté?a]$_O$ [ta]$_A$-dó-r-aʔ-i
ground INC.RL-be.straight-THC-TR-3sg.OBJ
Let's level the ground.

(Lichtenberk 1983: 218)

Under (B) in Table 4.1 are verbs with which *-aʔ* has an applicative function. Examples (3) and (4) demonstrate this usage of *-aʔ* with the verb *nanari* 'to tell a story'. In (3) this verb is used intransitively and the S argument denotes the agent participant. With the suffix *-aʔ*, as in (4), the agent participant is expressed as A and a patient participant is expressed as O.

3) [u]$_S$-nanári
1sg.RL-tell.story
I told a story.

(Lichtenberk 1983: 138)

4) [yábu]$_O$ [u]$_A$-nanarí-t-aʔ-i
Y. 1sg.RL-tell.story-THC-TR-3sg.OBJ
I told the story about Yabu.

(Lichtenberk 1983: 138)

Comparison of the intransitive and transitivised forms shows that with a number of verbs a consonant occurs between the verb stem and the transitivising suffix. These are thematic consonants which have been lost in word-final position, but are retained when 'protected' by a following suffix. In Manam, with only a few exceptions, the same thematic consonant occurs with a verb stem before *-aʔ* and before the reflex of the Proto Oceanic transitive suffix **-i*, the Manam 3rd person object suffix *-i*.

Table 4.1: Manam verbs which take *-aʔ*

intransitive		transitive with *-aʔ*	
(A) causative function			
mambu	*be finished*	mamabu-aʔ-	*finish sth*
ʔaiboaŋ	*be strong*	ʔaiboaŋ-aʔ-	*strengthen, encourage sth*
taliʔubi	*be entangled*	taliʔubi-ŋ-aʔ-	*entangle sth*
ado	*be straight*	ado-r-aʔ-	*straighten sth*

Table 4.1 (cont)

intransitive		transitive with *-a?*	
gege	*roll*	gege-a?-	*roll sth*
alale	*walk*	alale-a?-	*walk s.o., help s.o. walk*
soalili	*twirl*	soalili-ŋ-a?-	*twirl sth*
moa?usu	*shake*	moa?usu-ŋ-a?-	*shake sth*
(B) applicative function			
sege	*not like, not want*	sege-a?-	*not like, not want sth*
rere	*like, want*	rere-t-a?-	*like, want sth*
?awa	*know*	?awa-t-a?-	*know sth*
moana?o	*eat*	moana?o-a?-	*give a feast (i.e. eat in s.o.'s honour)*
wanana	*wait*	wanan-a?-	*wait for, expect sth*
nanari	*tell a story*	nanari-t-a?-	*tell a story about sth*
ŋui	*mumble, hum*	ŋui-ŋ-a?-	*mumble, hum sth*

(Lichtenberk 1983: 230-231 & 233-234)

In Motu the reflex of **akin[i]* is the suffix *-Cai*, where *C* represents the thematic consonants. In Motu thematic consonants occur with *-Cai*, the reflex of **akin[i]*, but not before the transitive suffix *-i*, the reflex of **-i*. While *-Cai* has both applicative and causative uses, the applicative one is by far the more common. A search of the Motu dictionary (Lister-Turner & Clark 1954) revealed 58 verbs with *-Cai* and with only one of these did it have a clear causative use. Table 4.2 gives examples of these two uses of *-Cai*. Under (A) is the verb with which *-Cai* has a causative use. Under (B) are verbs with which *-Cai* has an applicative function.

Table 4.2: Causative and applicative uses of Motu *-Cai*

intransitive or transitive with *-i* and/or object suffixes		transitive with *-Cai*	
(A) causative function			
badu	*be angry*	badu-badu-rai-	*to provoke, tease s.o., make s.o. angry*
(B) applicative function			
dadaba-i-	*flog, beat*	dadaba-lai-	*to beat with sth*
dede-	*singe*	dede-rai-	*to singe with sth*
mai	*come*	mai-lai-	*to bring sth*
nahu	*swim*	nahu-lai-	*to swim with sth*
gwau	*speak*	gwau-rai-	*to speak of, about sth*
kiri	*laugh*	kirikiri-lai-	*to laugh at sth*

(data from Lister-Turner & Clark 1954)

As an applicative suffix *-Cai* introduces as the O argument a range of roles, in particular those of instrument and concomitant. Table 4.3 gives examples of the types of roles expressed as the O argument of verbs with *-Cai*. There are many other verbs which take applicative *-Cai*, but with O arguments whose roles do not fit into one of these categories.

Table 4.3: Roles of the O argument of verbs with *-Cai* in Motu

intransitive or transitive with *-i* and/or object suffixes		transitive with *-Cai*	
(i) O denotes an intrument			
dadaba-i-	*flog, beat*	dadaba-lai-	*beat with sth*
dede-	*singe*	dede-rai-	*singe with sth*
totohi-	*prop a tree or house*	totohi-lai-	*prop a tree with sth*
turi-	*plait, sew*	turi-lai-	*sew with sth*
ubu-	*feed*	ubu-lai-	*feed with sth*

Table 4.3 (cont)

intransitive		transitive	
(ii) O denotes a concomitant			
dae	*ascend*	dae-lai-	*ascend with sth, carry sth up*
loa	*go*	lao-hai-	*take sth away*
mai	*come*	mai-lai-	*bring sth*
nahu	*swim*	nahu-lai-	*swim with sth*
(iii) O denotes content of speech			
gwau	*speak*	gwau-rai-	*speak of sth*
habade-	*accuse*	habade-lai-	*accuse of sth*
heaɣi	*boast*	heaɣi-lai-	*brag about sth*
(iv) O denotes a location			
digu	*bathe*	digu-lai-	*bathe in sth*
eno	*lie down*	eno-lai-	*lie on sth*
nadu-	*cook by boiling*	nadu-lai-	*cook in sth*

(data from Lister-Turner & Clark 1954)

In Longgu the transitivising suffix *-Ca'ini* also has both an applicative and a causative function, determined by whether it is added to an Actor subject or an Undergoer subject verb. In examples (5) and (6) the verb *ango* 'crawl' is used intransitively and transitively, respectively. The participant added to the transitive clause is expressed as the O argument and thus here *-Ca'ini* has an applicative use. Although the A argument is not overtly expressed in (8), comparison with the intransitive clause in (7) shows that the intransitive S argument corresponds to the transitive O argument, and thus here *-Ca'ini* has a causative use. The thematic consonant of *-Ca'ini* in Longgu is either *t* or *r*, whereas the thematic consonant with the other transitive suffix, *-Ci*, is *ng*, *l*, *s*, *v*, *'* (glottal stop), or *z*.

5) [mwaa-i]$_S$ e ango
snake-SG 3sg crawl
The snake is crawling.

(Hill 1992: 58)

6) [mwaa-i]$_A$ e ango-**ta'ini**-ra [gale ngai-gi]$_O$
snake-SG 3sg crawl-**TR**-3pl baby 3sg-PL
The snake is crawling with its babies (on its back).

(Hill 1992: 59)

7) [lamui]$_S$ e dau
lamp 3sg hanging
The lamp is hanging up.

(Hill 1992: 59)

8) dau-**ra'ini**-a [lamui]$_O$
hang-**TR**-3sg lamp
Hang up the lamp.

(Hill 1992: 59)

Only about twenty verbs in Longgu occur with *-Ca'ini* and nearly half of these verbs have no intransitive form, but rather have two transitive forms, one with *-Ca'ini* and one with *-Ci* and/or the object suffixes. In these instances *-Ca'ini* has a valency rearranging function, that is, it allows the verb to take an O argument of a different semantic role than with the other transitive form (Hill 1992: 57). Other verbs have an intransitive form and two transitive forms and the difference between the transitive forms is the semantic role of the O argument. For example, in (9) the verb *poga* 'erupt' is used with the *-Ci* transitive suffix and the O argument has the role of location, whereas in (10) this verb is used with the *-Ca'ini* suffix and the O argument has the role of theme.

9) [biti]$_A$ e poga-**li**-a [komu-i]$_O$
volcano 3sg erupt-**TR**-3sg village-SG
The volcano erupted on the village.

(Hill 1992: 59)

10) [biti]$_A$ e poga-**ta'ini**-a [lupilupi]$_O$
volcano 3sg erupt-**TR**-3sg mud
The volcano spewed lava.

(Hill 1992: 60)

In Boumaa Fijian the transitivising reflex of **akin[i]* is a suffix *-Ca'ina/-Ca'ini*, where *C* represents a thematic consonant. The *-Ca'ini* form occurs before O arguments expressed by pronouns or proper names and the *-Ca'ina* form elsewhere. This latter form reflects a contraction of *-Ca'ini* and the original 3sg object enclitic **=a*. One allomorph of this suffix, *-ta'ina*, is the productive transitiviser in the language and is used with loan

words and also with the causative prefix *va'a-* in the productive process of deriving transitive verbs from greetings, interjections, nouns, adjectives and numerals (Dixon 1988: 201). Boumaa Fijian *-Ca'ina* has both applicative and causative functions. With Actor subject verbs *-Ca'ina* has an applicative use, the introduced participant being expressed as O and with Undergoer subject verbs it has a causative use, the introduced participant being expressed as A. Table 4.4 gives examples of these two uses of Boumaa Fijian *-Ca'ina.*

Table 4.4: Causative and applicative uses of *-Ca'ina* in Boumaa Fijian

intransitive		transitive with *-Ca'ina*	
(A) causative function			
lo'uyara	*be postponed*	lo'uyara-ta'ina	*postpone sth*
qua	*be scrubbed*	qua-ra'ina	*scrub sth hard*
vuni	*be hidden*	vuni-ta'ina	*hide sth (on behalf of s.o.)*
'ari	*be scraped*	'ari-ta'ina	*scrape sth*
(B) applicative function			
dredre	*to laugh*	dredre-ta'ina	*to laugh at s.o.*
lolo	*to fast*	lolo-va'ina	*to fast on account of sth*
maarau	*to be happy*	maarau-ta'ina	*to be happy about sth*
vana	*to shoot*	vana-ta'ina	*to shoot with sth*

(data from Dixon 1988)

Many verbs in Boumaa Fijian can take both the short transitive suffix *-Ca*[1] and the long transitive suffix *-Ca'ina.* Dixon (1988: 215-221) notes that with at least some verbs there are regular differences between the two transitive forms and describes these differences as either semantic or syntactic. Table 4.5 gives examples of Boumaa Fijian verbs which can take both transitive suffixes. Following Dixon's (1988) terms and divisions, the verbs have been divided into groups on the basis of the type of difference between the two transitive forms of the verb. The first part of the table demonstrates the types of syntactic differences and the second part demonstrates the semantic differences. In general the syntactic differences involve differences in the grammatical relations determined by the verb. That is, the forms with different transitive suffixes allow an O

[1] Boumaa Fijian *-Ca* reflects a contraction of the Proto Oceanic transitive suffix **-i* and the 3sg object enclitic**=a*, with an initial thematic consonant.

argument with a different semantic role. Naturally enough, verbs which show such a difference are mostly Actor subject and both *-Ca'ina* and *-Ca* have the applicative function, although a few are unclassified in this sense as no intransitive forms were found. Alternations between the type of role denoted by O with *-Ca* and with *-Ca'ina* can be divided into several groups. Those verbs under (A) in Table 4.5 show an alternation between a patient role as O with *-Ca* and an instrument role as O with *-Ca'ina*. With others, like those motion verbs under (B), the alternation is between a goal role with *-Ca* and a concomitant role with *-Ca'ina*. The verbs under (C) are corporeal verbs and take a goal role with *-Ca* and an emission role with *-Ca'ina*. Under (D) are verbs which take a recipient role with *-Ca* and a reason role with *-Ca'ina*. Under (E) are a few other verbs with which the two transitive suffixes allow different types of roles expressed as O, but the differences do not seem to be generalisable for particular groups of verbs. With the one verb given under (F), the syntactic difference between the two transitive forms appears to relate to the role of the subject (Dixon 1988: 219). This is the verb *voli* which when used intransitively means 'to be bought'. Both transitive suffixes have a causative function with this verb, adding an A argument. The O argument with both transitive forms is the participant exchanged. However, the transitive form *voli-a*[2] means 'buy' and the A argument is the participant receiving the exchanged item. With the long transitive suffix the derived form *voli-ta'ina* means 'sell' and the participant handing over the exchanged item is expressed as A.

The first semantic difference is mostly restricted to the *-ra'ina* and *-la'ina* allomorphs of *-Ca'ina*, which indicate that the action denoted by the verb is carried out 'many times' or is done 'intensively'. Dixon (1988: 216) also notes that a few motion verbs have an intensive alternate with the *-ta'ina* and *-va'ina* forms of the suffix. Verbs which show this type of derivation with *-Ca'ina* are shown under (G) in Table 4.5. Dixon's (1988: 216-217) other categories of semantic differences between the two transitive endings involve the semantic nature of the participant expressed as the O argument, and varying semantic implications the suffixes have over the predicate. For example, with the verb *digi* 'choose', shown under (H), the short transitive suffix occurs when the O argument expresses a thing and the long transitive suffix when the O argument expresses a person. Dixon (1988: 216) also includes the verb *te* 'plant, cultivate' in this category. However, this appears rather to involve a syntactic difference with which the two transitive suffixes allow O arguments of different semantic roles. Thus *te* 'plant' has been included under (E). Under (I) are the verbs *laga* 'sing' and *vuni* 'hide'. With these verbs the transitive suffixes carry varying semantic implications. Thus

[2] This form *voli-a* 'buy' reflects Proto Oceanic **poli=a* 'buy=3sg', a verb which did not originally take the transitive suffix **-i*, but rather took object enclitics directly. See chapter 3 for a discussion of this.

laga-ta, with the short transitive suffix, has the meaning 'to sing', but *laga-ta'ina*, with the long transitive suffix, has the meaning 'to announce'. With the verb *vuni* 'hide' the form with the long transitive suffix has the additional sense of 'to do on behalf of someone'. Dixon (1988: 216) also included the verb *tala* 'to send' in this category. I have included this verb under (E) as it seems to involve a difference in syntactic frame in terms of the type of O argument which occurs with each transitive form. Both *-Ca'ina* and *-Ca* in Boumaa Fijian also have a causative use, and here the choice of suffix appears to be lexically-determined.

Table 4.5: Boumaa Fijian transitive verbs with *-Ca* and *-Ca'ina*

transitive with *-Ca*		transitive with *-Ca'ina*	
(i) syntactic differences			
(A) - PATIENT VS INSTRUMENT			
siwa-ta	*fish with line for sth*	siwa-ta'ina	*fish with line*
qoli-va	*fish with net for sth*	qoli-va'ina	*fish with net*
vana-a	*shoot at*	vana-ta'ina	*shoot with sth*
co'a-a	*throw spear at*	co'a-ta'ina	*throw sth (spear)*
(B) - GOAL VS CONCOMITANT			
cabe-ta	*go up sth*	cabe-ta'ina	*go up with sth*
nunu-va	*swim underwater for*	nunu-va'ina	*swim underwater with sth*
yaqa-va	*creep to sth*	yaqa-ta'ina	*creep with sth*
(C) - GOAL VS EMISSION			
lua-ca	*vomit onto sth*	lua-ra'ina	*vomit sth*
kaasivi-ta	*spit on sth*	kaasivi-ta'ina	*spit sth*
ve'a-ca	*defecate on sth*	ve'a-ca'ina	*defecate sth*
miimi-ca	*urinate on sth*	miimi-ca'ina	*urinate sth*
(D) - RECIPIENT VS REASON			
pu'u-ca	*angry with s.o.*	pu'u-ca'ina	*angry about sth*
sure-ta	*invite s.o.*	sure-va'ina	*invite to sth*
vala-ta	*fight s.o.*	vala-ta'ina	*fight over/for sth*
'aci-va	*call s.o.*	'aci-va'ina	*call sth*
vuunau-ca	*advise s.o.*	vuunau-ta'ina	*advise sth*

Table 4.5 (cont)

transitive with *-Ca*		transitive with *-Ca'ina*	
(E) - OTHER ROLE DIFFERENCES			
voce-ta	*row (distance)*	voce-ta'ina	*row sth*
so'o-va	*sail on (ocean)*	so'o-ta'ina	*sail sth*
te-a	*plant (crop)*	tee-va'ina	*cultivate sth (land)*
tala-a	*send s.o.*	tala-va'ina	*send for s.o.*
(F) - DIFFERENCE IN SUBJECT			
voli-a	*buy sth*	voli-ta'ina	*sell sth*
(ii) semantic differences			
(G) - INTENSIVE			
motu-'a	*beat sth with a club*	motu-la'ina	*beat sth many times*
qua-ta	*scrub sth*	qua-ra'ina	*scrub sth hard*
voro-'a	*smash sth*	voro-la'ina	*smash sth into tiny pieces*
gede-a	*shake sth once*	gede-ra'ina	*shake sth many times*
dre-ta	*pull sth*	dre-ta'ina	*pull sth vigorously*
tete-va	*spread sth*	tete-va'ina	*spread sth all over*
(H) - SEMANTIC NATURE OF OBJECT			
digi-a	*choose sth (things)*	digi-ta'ina	*choose sth (people)*
(I) - DIFFERENT MEANING			
laga-ta	*sing sth (song)*	laga-ta'ina	*announce sth*
vuni-a	*hide sth*	vuni-ta'ina	*hide sth (on behalf of s.o.)*

(data from Dixon 1988: 215-218)

Pawley (1986: 90-95) had already proposed similar alternations between the types O arguments of transitive verbs with *-Ci* and *-Caki* in Bauan (Standard) Fijian. He went a step further and proposed that the role of the O argument with a verb with *-Ci* and with *-Caki* is largely predictable from the semantics of the verb. Pawley (1986) proposes five semantic classes of verbs and for each class gives the type of role expressed as the O argument of a transitive verb derived with *-Ci* and one derived with *-Caki*. Table 4.6 gives Pawley's (1986) correlations between type of verb, transitive suffix and type of role, with examples of each verb type. Verbs of motion and posture take a goal role as O with *-Ci* and a concomitant role as O with *-Caki*. Direct effect verbs are those denoting events where an agent does something which has a direct effect on another role. With this type of verb *-Ci* allows a patient or product role as O and *-Caki* allows an instrument role as O. With verbs of speaking *-Ci* allows a goal (audience) role as O and with *-Caki* the

content is expressed as O. Bodily process verbs are ones where the experiencer undergoes or performs a natural bodily process and take a place role as O with *-Ci* and a product role as O with *-Caki*. With verbs of psychological and emotional states *-Ci* allows a stimulus role as O and *-Caki* a cause role.

Table 4.6: Semantic roles of object with *-Ci* and *-Caki* in Bauan Fijian

transitive with *-Ci*		transitive with *-Caki*	
(A) verbs of motion and posture			
PLACE/GOAL		CONCOMITANT	
cici-vi	*run to/for sth*	cici-vaki	*run with sth*
qalo-vi	*swim to sth*	qalo-vaki	*swim with sth*
soko-ti	*sail to (a place)*	soko-taki	*sail sth*
(B) direct effect			
PATIENT/PRODUCT		INSTRUMENT	
coka-i	*pierce sth*	coka-taki	*pierce with sth*
nima-ti	*bail out a canoe*	nima-taki	*bail with sth*
rabo-ti	*sling at sth*	rabo-taki	*sling sth*
(C) verbs of speaking			
GOAL = AUDIENCE		CONTENT[3]	
sure-ti	*ask help of s.o.*	sure-taki	*ask sth*
tagi-ci	*cry for*	tagi-caki	*cry about*
vosa-ki	*speak to s.o.*	vosa-taki	*talk about*
(D) bodily process verbs			
PLACE		PRODUCT	
buno-ci	*sweat at sth*	buno-taki	*sweat sth*
kasivi-ti	*spit on sth*	kasivi-taki	*spit sth out*
lua-ci	*vomit on sth*	lua-raki	*vomit sth*
(E) verbs of psychological and emotional states			
STIMULUS		CAUSE	
gadre-vi	*desire sth*	gadre-vaki	*be delighted with sth*
leva-ci	*be angry with*	leva-taki	*be angry about*
tadra-i	*dream (a dream)*	tadra-taki	*dream of s.o.*

(adapted from Pawley 1986: 91-94)

[3] Pawley (1986) calls this role 'product'.

In North-East Ambae reflexes of Proto Oceanic **akin[i]* also have both an applicative and a causative function. However, unlike the languages described above, in North-East Ambae the two functions are expressed by different forms. The suffix *-gi(ni)* has an applicative function and *-tagi(ni)* a causative function. With both suffixes the longer forms, *-gini* and *-tagini*, are used when the O argument is expressed as a 3rd person object enclitic. Elsewhere, that is when the O argument is expressed as a noun phrase or as 1st or 2nd person object enclitics, the short forms, *-gi* and *-tagi*, are used. Sentences (11) and (12) demonstrate the use of the applicative suffix *-gi(ni)*. The verb *mwoso* 'play' is used intransitively in (11), and although not overtly mentioned, the understood S argument is an agent. In (12) the verb takes the applicative suffix *-gi(ni)* and the agent participant is expressed as A and the new participant as O.

11) mo mwoso-mwoso lolo vale
RL REDUP-play in house
She/he is playing in the house.

(Hyslop 1998: 335)

12) siseringaha bataha [ra]$_A$=ru mo mwoso-mwoso-**gini**=[e]$_O$
now I.think 3NSGS=DL RL REDUP-play-APP=3sgO
lolo vale-ra
in house-3NSGP
Now, I think that they are playing with him in their house.

(Hyslop 1998: 335)

With four types of verbs; motion verbs, speech and cognition verbs, meteorological verbs, and verbs of excretion/secretion, the semantic role of the O argument introduced by *-gi(ni)* is predictable. Thus, motion verbs with *-gi(ni)* take a concomitant (or transportative) role as O, as demonstrated by (13). With speech and cognition verbs the O argument allowed by *-gi(ni)* is the content of the speech or thought, as shown in (14). Meteorological verbs and verbs of excretion/secretion are some of the few verbs in North-East Ambae which can take either of the two applicative suffixes. With the suffix *-Ci*, the reflex of Proto Oceanic **-i*, these verbs take a location role as O, and with *-gi(ni)* these verbs take a product role as O, where the product is something other than that normally expected. Examples (15) and (16) demonstrate this use of *-gi(ni)* (Hyslop 1998: 341-345). With most other verbs the semantic role of the introduced O argument is not predictable from the meaning of the underived verb, although a common function of *-gi(ni)* is to introduce concomitant and purposive O arguments (Hyslop 1998: 335).

13) go=mese toa-**gi** na here
2SGS=DEHOR run-**APP** ACC coco.torch
Don't run off with the coconut leaf torch!

(Hyslop 1998: 339)

14) da=ni domi-**gi** na problem ngihie.
1NSG.INCS=IRR think-**APP** ACC problem that
We should think about the problem.

(Hyslop 1998: 340)

15) mo havu na toa, siu no=mo lehe mwere vo mo
RL pluck ACC chicken CONJ 1SGS=RL see like say RL
uhe-**gi** na vulu-i toa.
rain-**APP** ACC feather-CONST chicken
She plucked the chicken, and then it looked as if it was raining chicken feathers.

(Hyslop 1998: 342)

16) go=lodo-**gi** vohogi na vatu
2SGS=spit-**APP** completely ACC stone
Spit out the stone!

(Hyslop 1998: 342)

With a few verbs *-gi(ni)* not only introduces an O argument, but it also alters the meaning of the verb. Thus *gato-gi(ni)* 'to scold', as in (17), is derived from the verb *gato* 'to speak' and the form *vora-gi(ni)* 'to become', as in (18), is derived from *vora* 'to be born' (Hyslop 1998: 337-338).

17) retahi-ku mo gato-**gi**=eu.
mother-1SGP RL speak-**APP**=1SGO
My mother told me off.

(Hyslop 1998: 338)

18) ga=u wehe na boe, ale ga=u vora-**gi** retahigi
1NSG.EXCS=TEL kill ACC pig so 1NSG.EXCS=TEL born-**APP** chief
We killed pigs, and so we became chiefs.

(Hyslop 1998: 337)

With one verb, *walau* 'to move along (as in boat or plane)', *-gi(ni)* has a causative use. Thus the S argument in (19) expresses the moving participant and

corresponds to the O argument in (20), and a new participant is introduced as A of the derived verb.

19) [aka]$_S$ mo walau lo-lo tahi.
canoe RL move.along REDUP-LOC sea
The canoe is/was moving along on the sea.
(Hyslop 1998: 338)

20) ...[ra]$_A$=u walau-**gi** [na aka-ra]$_O$, ra=mo hage
3NSGS=TEL move.along-APP ACC canoe-3NSGP 3NSGS=RL go.up
Maewo...
Maewo
...they paddled their canoes and went up to Maewo...[4]
(Hyslop 1998: 338)

The causative suffix *-tagi(ni)* occurs with only a few verbs and its usage is demonstrated by (21) and (22). In (21) the verb *labe* 'stand' is used intransitively and the S argument expresses the patient participant. When this verb is used transitively with *-tagi(ni)*, as in (22), the patient participant is expressed as the O argument and the introduced participant is expressed as A. With the other three intransitive verbs that take *-tagi(ni)* it has the same function (Hyslop 1998: 346-347).

21) [beru-i bata-ra ngaha]$_S$ mo labe me
post-CONST bed-3NSGP this RL stand and
na qana-ra ngaha mo dule
ACC mat-3NSGP RL hang
Their bedpost is standing up and their mat (curtain) is hanging.
(Hyslop 1998: 346)

22) mo rovo, [da]$_A$=mo labe-**tagi** [na qetu-qetu-gi]$_O$
RL finish 1NSG.INCS=real stand-CAUS ACC REDUP-wall-AL
After, we stand up the walls.
(Hyslop 1998: 346)

There is one transitive verb, *rongo* 'to hear' which can take *-tagi(ni)*. With this verb *-tagi(ni)* does not alter the valency, but the agent has a more volitional role in the clause

[4] Although *-gi(ni)* has a causative use in this example, it is glossed APPL(icative) following Hyslop (1998), who glosses *-gi(ni)* consistently as applicative and notes this one causative use as an exception.

and the meaning becomes 'to listen', Examples (23) and (24) show the unsuffixed and suffixed forms of this verb. Note that *rongo* 'to hear' is reduplicated when it occurs with *-tagi(ni)* (Hyslop 1998: 347).

23) mo toga mo rongo na tigo Hagova.
RL sit RL hear ACC dance Hagova
He sat and heard the 'Tigo' dance at Hagova.

(Hyslop 1998: 347)

24) ra=ru mo ro-rongo-**tagi** mo hamai.
3NSGS=DL RL REDUP-hear-CAUS RL go.up:to.sp
The two of them listened to it coming up.

(Hyslop 1998: 347)

Of interest concerning these two suffixes in North-East Ambae is that while both appear to reflect Proto Oceanic **akin[i]*, the causative suffix *-tagi(ni)* seems to reflect a form that has been suffixed for longer than the applicative suffix *-gi(ni)*. It is the causative suffix which retains the initial vowel, and more importantly contains a thematic consonant (completely generalised to *t*). The applicative suffix has not retained the initial vowel and that it does not reflect a thematic consonant suggests that it may have become a suffix at a later stage.

Tawala reflects **akin[i]* as the transitivising suffix *-ge*, with allomorphs *-ge*, *-e* and *-ye*[5]. This suffix always has an applicative function and is attached to only intransitive verbs of four semantic classes: verbs of speaking; relationship verbs; psychological verbs; and motion verbs (Ezard 1997: 285-287). Table 4.7 gives examples of Tawala intransitive verbs and their transitive counterparts derived with *-ge*. The types of participants which *-ge* introduces with each type of verb are similar to those allowed by reflexes of **akin[i]* in other Oceanic languages. Thus with verbs of speaking the O argument is either the addressee or the content of the 'speech'. With relationship verbs the O argument is the person or thing that is the object of the relation. The O argument of psychological verbs is the cause or stimulus and with motion verbs the O argument has the role of concomitant[6].

[5] This is the only transitive suffix in Tawala. Proto Oceanic **-i* has been reanalysed as a 3sg object suffix.

[6] It is not clear from the glosses given for the motion verbs in Table 4.7 whether *-ge* has an applicative or causative use. However, the example sentences and the description of such forms in Ezard (1997) show that the S and A arguments correspond and that the O argument has the role of concomitant, that is, something taken along with the Actor participant.

Table 4.7: Tawala verbs derived with the transitivising suffix *-ge*

intransitive		transitive with *-ge*	
(A) verbs of speaking			
-lupali	*make request*	-lupali-ye-	*beg for sth/s.o.*
-baha	*speak*	-bah-e-	*say sth to s.o.*
-gagayo	*make a vow*	-gagayo-ge-	*vow sth, vow to s.o.*
(B) relationship verbs			
-taniwaga	*rule*	-taniwag-e-	*rule sth/s.o.*
-gimala	*trade*	-gimal-e-	*trade (sth) with s.o.*
-luhogala	*desire*	-luhogal-e-	*desire sth/s.o.*
(C) psychological verbs			
-matouta	*fear*	-matout-e-	*fear sth/s.o.*
-lowo	*flee*	-lowo-ge-	*flee sth/s.o.*
-kaoha	*be happy*	-kaoh-e-	*welcome s.o.*
(D) motion verbs			
-nae	*go*	-ni-ye-	*take sth on*
-gae	*go up*	-gi-ye-	*take sth up*
-damana	*cross over*	-daman-e	*take sth/s.o. across*

(data from Ezard 1997: 288-290)

In general a verb can occur transitively with either the transitivising suffix *-ge* or with the object suffixes directly attached, but there are a few verbs where there is a contrast between two types of transitive forms. Ezard (1997: 283) suggests that a predicate is higher on the transitivity scale (following Hopper & Thompson 1980) when marked with *-ge* than when taking the object suffixes directly. In particular the object of a predicate marked with *-ge* is more highly affected, as demonstrated by (25) and (26). In (25) the verb *gei* 'to ascend' takes the suffix *-ge* and the O argument denotes a concomitant role, that is something taken along with the agent participant. In (26), however, this verb takes the object enclitics directly and the participant expressed by the O argument denotes a location, which is not affected by the event. These two examples may also reflect the commonly found pattern in Oceanic, where when a motion verb takes a reflex of **-i* and/or the object enclitics the O argument expresses a location, and when such a verb takes a reflex of **akin[i]* the O argument expresses a concomitant role.

25) oya ugoli-na i-gi-**ye**=ya
mountain at-3sg 3sg-take.up-TR-3sg
He took it up to the mountain.

(Ezard 1997: 283)

26) neula i-gei=ni
coconut 3sg-ascend-3sg
He climbed the coconut palm.

(Ezard 1997: 283)

Ezard (1997: 284) notes, with some verbs the situation is reversed and it is the participant expressed as the O argument of a predicate marked by the object enclitics alone which is the more affected. For example, in (27) the verb *tona* 'to pierce, spear' takes the object enclitic directly and the patient participant is totally affected by the event, whereas in (28) the patient participant of this verb with the *-ge* suffix is only partially affected by the event.

27) iyana a-tona=ya
fish 1sg-spear-3sg
I speared a fish.

(Ezard 1997: 284)

28) hoi geama ae-u a-ton-**e**=ya
LOC rock foot-1sg 1sg-pierce-TR-3sg
I pierced my foot on a rock.

(Ezard 1997: 284)

The allomorphy of the Tawala transitivising suffix is phonologically conditioned. The form *-e* occurs with verbs ending in *e* or *a* and replaces this final vowel, as with the forms *bah-e-* 'to say sth to' and *kaoh-e-* 'welcome s.o.'. The *-ye* form occurs following an *i* vowel, as with *lupali-ye-* 'beg for sth', and *-ge* occurs elsewhere (Ezard 1997: 38-40). The allomorph which directly reflects Proto Oceanic **akin[i]* is *-e*, with which Proto Oceanic **k* has been lost through a regular sound change (see Ross 1988: 201) and the resultant sequence of **ai* has merged to *-e*[7]. The proposed historical development of each allomorph of the Tawala transitivising suffix is set out in Table 4.8. The allomorph *-e* which replaces the final vowel of verb stems ending in *-a* developed first with original consonant-final stems, as schematised at stage I under (A) in Table 4.8. Original Proto

[7] Malcolm Ross (pers. comm.) first suggested this analysis, although the proposed development of the *-ge* allomorph is mine.

Oceanic consonant-final stems in Tawala have had a final *a* vowel added to avoid word-final closed syllables. Thus Proto Oceanic **matakut* 'be afraid' is reflected in Tawala as *matouta* 'be afraid'. With verbal forms which had a suffix attached there was no need to add a vowel as such forms did not have a word-final consonant. This led to the system at stage II where synchronically the transitivising suffix appears to replace the final vowel of the intransitive form of the verb. This synchronic rule has subsequently been extended to include all *a*-final stems, and so disyllabic forms which do not reflect original consonant-final forms follow the same pattern, where *-e* replaces the final vowel. With verb stems ending in *-e*, the transitivising suffix *-e* is also said to replace the final vowel of the stem. With such forms the sequence of two identical vowels, stem-final *-e* and suffix *-e*, are realised as a single *e* vowel, as shown under (B) in Table 4.8. This type of phonological rule is also found elsewhere in the language (see Ezard 1997: 36). The allomorph *-ye*, which occurs with verb stems ending in *i*, is the result of the insertion of an epenthetic *y* between what otherwise would have been a sequence *e-i*, as shown under (C). This is also a phonological pattern found between morphemes elsewhere in the language (see Ezard 1997: 40-41). Under (D) in Table 4.8 is the proposed development of the *-ge* allomorph. The form *-ge*, listed with the "elsewhere" environment, occurs with verb stems ending in the vowels *u* or *o* or with *m*. Word- and morpheme-final *m* in Tawala is syllabic and reflects an original word- or morpheme-final syllable *mu* (see Ezard 1997: 34-35). Thus, the original environment of *-ge* was following the vowels *u* and *o*. Parallel to the insertion of epenthetic *y* following *i*, it appears that an epenthetic glide *w* was inserted following *u* and *o* (stage I). Subsequent changes were the change of word- and morpheme-final *mu* to *m̩* (stage II), and an irregular strengthening of *w* to *g* in this form of the transitivising suffix (stage III).

Table 4.8: Development of the allomorphy of the Tawala transitivising suffix *-ge*

stage	changes proposed	intransitive word-structure	transitive word-structure
(A) *-e* with verbs ending in *-a*, where *-e* replaces final vowel			
I	*-e* attached to consonant-final stems	CVCVC	CVCVC-e-
II	addition of *-a* to consonant-final forms	CVCVCa	CVCVC-e-
III	extension of synchronic rule of *-e* replacing final *-a* to all *a*-final stems	CVCVCa CVCa	CVCVC-e- CVC-e-
(B) *-e* with verbs ending in *-e*, where *-e* replaces final vowel			
I	stem-final *-e* followed by suffix *-e* realised as a single *-e* vowel	CVCe	CVC-e-
(C) *-ye* with verbs ending in *i*			
I	epenthetic glide *y* inserted between final *-i* vowel and suffix *-e*	CVCi	CVCi-y-e-
(D) *-ge* with verbs ending in *-u*, *-o*, or *-mᵢ*			
I	epenthetic glide *w* inserted between final *-u* and *-o* vowels and suffix *-e*	CVCo CVCu CVmu	CVCo-w-e CVCu-w-e CVmu-w-e
II	word- and morpheme-final *-mu* changes to *-mᵢ*	CVCo CVCu CVmᵢ	CVCo-w-e CVCu-w-e Cvmᵢ-w-e
III	strengthening of *w* to *g* in this morpheme	CVCo CVCu CVmᵢ	CVCo-g-e CVCu-g-e Cvmᵢ-g-e

In Tawala the **ni* of **akin[i]* has been reanalysed as an object enclitic. The Tawala 3sg object enclitic has four allomorphs: *=i*; *=hi*; *=ya*; and *=ni*. The choice of allomorph depends on the phonological shape of the root, that is the number of syllables, and the nature of the final syllable, or more usually the final vowel (Ezard 1991: 129). The *-i* form of the enclitic is apparently a reflex of the Proto Oceanic transitive suffix **-i* and its distribution as an object enclitic reflects its original distribution as the transitive suffix. In Tawala the 3sg object enclitic has the form *=i* with; a) polysyllabic stems ending in */a/*, where *=i* is substituted for the final vowel; and b) with transitive verbs stems ending in *-i* (with no apparent intransitive counterpart). With the latter forms either the 3sg enclitic has an unmarked form or the two identical vowels (that is the final *-i* of

the verb stem and the *=i* of the 3sg object enclitic) are realised as a single vowel *-i*. The former environment of the *=i* allomorph can be seen to reflect consonant-final verbs in Proto Oceanic which took **-i* in their transitive forms and to which a final vowel *-a* has been added in their intransitive form to avoid a final closed syllable. The allomorph *=hi* occurs with a very restricted class of verbs. It occurs with trisyllabic intransitive verbs ending in *-ta* which is replaced by *=hi*. For example, *-alata* 'burn' becomes *-ala=hi* 'burn sth' (Ezard 1991: 130). This group is a subclass of those polysyllabic verbs which take *-i*, and where there has been a phonological change in the transitive form. Proto Oceanic **t* changed to **s* before **i*, and **s* has subsequently changed to *h* (Ezard 1991: 30, see also Ross 1988: 199). The *=ya* form of the 3sg object enclitic may reflect the Proto Oceanic sequence of transitive suffix **-i* and 3sg object enclitic **=a*. In Tawala this allomorph occurs with disyllabic verbs ending in *-a* and verbs ending in other vowels, though rarely *-i* (Ezard 1991: 131-132).

The form of most interest here is the allomorph *=ni*. This form is in dialectal variation with *-ya* in that the Kehelala dialect has *=ni* and the Labe dialect has *=ya*. The *=ni* allomorph indexes 3sg O arguments with most derived verbs, including those with the transitivising suffix *-ge* (Ezard 1991: 132-133). Thus the Tawala sequence of *verb + ge + ni* (verb + transitive suffix + object enclitic) can be seen to reflect the Proto Oceanic sequence of **verb + akini*, where the final syllable of the Proto Oceanic **akin[i]* has been reanalysed as the 3sg object suffix in the Kehelala dialect of Tawala. The use of *=ni* with verbs which do not take the transitivising suffix presumably results from an extension of *=ni* as an object enclitic.

4.2.2 The detransitivising function

In several Oceanic languages reflexes of **akin[i]* seem to have the converse of the transitivising function and actually derive intransitive verbs.

All Micronesian languages have a verbal suffix which derives intransitive verbs from transitive verbs. Harrison (1982: 201-202) reconstructs this suffix for Proto Micronesian as **-aki*, reflecting Proto Oceanic **aki*. Reflexes of Proto Micronesian **-aki* derive verbs with a resultant state or 'agentless' passive interpretation (Harrison 1982: 202), and this is the function that Harrison reconstructs for the Proto Micronesian form. For example, the Woleaian suffix *-ag* (occurring as as *-eg* after high vowels) is used with certain (but not all) transitive verbs to derive intransitive verbs with a patient participant expressed as S (Sohn 1975: 122). In (29) the verb *feshi-ng-i* 'to pick sth' is used

transitively with the transitive suffix *-i*, and a patient participant is expressed as the O argument. In (30) this verb occurs with the *-ag* suffix. This clause is intransitive and the patient participant is expressed as the S argument. Both the transitive suffix *-i* and the passive suffix *-ag* occur with thematic consonants.

29) [ye]$_A$ sa feshi-ng-i lag [filooras we]$_O$
3sgS PERF pick-THC-TR DIR flower DEM
He has picked the flower.

(Sohn 1975: 245; gloss mine)

30) [ye]$_S$ sa feshi-ng-**eg** lag [filooras we]$_S$
3sgS PERF pick-THC-PASS DIR flower DEM
The flower has been picked.

(Sohn 1975: 245; gloss mine)

The Kosraean suffix *-yuhk* has the same function, as shown by (31) and (32) where the O argument of the transitive clause *siifac se* 'a ray fish' in (31) is expressed as the S argument of the intransitive clause in (32) where the verb takes *-yuhk*.

31) nga pahtuhre-ack siifac se
1sg catch-DIR ray one
I caught a ray fish.

(Lee 1975: 190; gloss mine)

32) siifac se patre-**yuhk**-yak
ray one catch-PASS-DIR
A ray fish was caught.

(Lee 1975: 190; gloss mine)

The passive suffix *-yuhk* in Kosraean can be used with derived transitive verbs, even those which take the instrument suffix *-kihn*, an apparent second reflex of Proto Oceanic **akin[i]*[8]. Example (33) shows the use of the derived verb *otwo-kihn* 'to weave with sth'. In (34) this verb occurs with the passive suffix *-yuhk*. The passive suffix can also be used with transitive verbs derived with the transitivising suffix *-i* (Lee 1975: 189-193).

[8] Many Micronesian languages have two reflexes of **akin[i]*: one which derives Undergoer subject verbs; and one which has a transitivsing use. Further research is needed to determine a detailed history of these forms.

33) eltahl otwot-kuhn-lah sroacnu ah
3pl weave-INST-DIR coconut.leaf DET
They used up all the coconut leaves in weaving.
(Lee 1975: 192; gloss mine)

34) sroacnu ah otwot-kihn-**yuhk**-lac
coconut.leaf DET weave-INST-**PASS**-DIR
The coconut leaves were used up in weaving.
(Lee 1975: 192; gloss mine)

In Mokilese the reflex of Proto Micronesian **-aki* is the detransitivising suffix *-ek*, but it is not restricted to deriving patient-subject verbs as in other Micronesian languages. It is also used in unspecified object and incorporated object constructions (Harrison 1982: 202). The patient-subject use of Mokilese *-ek* implies the involvement of an agent participant in the situation, although it is not overtly mentioned in the clause. This is demonstrated by examples (35), (36), (37) and (38). In (35) the verb *okoj* 'burn' is used transitively. In (36) it is used intransitively (without *-ek*) and the O argument of the transitive clause corresponds to the S argument of the intransitive clause, both denoting a patient participant. In (37) the verb is used with the *-ek* suffix. This clause has a similar meaning to (36), but an agent participant is implied. In (38) the verb *okoj-ek* is used with two participants, but in contrast to the transitive clause in (35) here the patient participant is non-specific. Harrison (1982: 202) suggests that this wider use of *-ek* in Mokilese is an innovation and was not a function of the Proto Micronesian antecedent **-aki*.

35) ngoah okoj-da angenmajis-se
1sg light.TR-DIR match-DET
I lit this match.
(Harrison 1976: 160; gloss mine)

36) angenmajis-se ok
match-DET light.INTR
This match is burning.
(Harrison 1976: 160; gloss mine)

37) angenmajis-se okoj-ek-da
match-DET light.TR-PASS-DIR
This match has been lit.
(Harrison 1976: 160; gloss mine)

38) ngoah okoj-ek angenmajis
1sg light.TR-PASS match
I am lighting matches.

(Harrison 1976: 160; gloss mine)

Wayan Fijian has two forms *-Caki* and *-Cakini*, each with different functions and distributions. Wayan *-Cakini* is a transitivising suffix similar to the Bauan Fijian and Boumaa Fijian forms described in the previous section. The usage of *-Caki* which is relevant to this section is one where it derives Undergoer subject verbs[9]. This is demonstrated by (39) and (40). In (39) the transitive verb *aci-* 'to take sth out of somewhere' is used. With this form an agent participant is expressed as A and a patient participant as O. In (40) the form *aci-laki* 'be all taken out' occurs and this form of the verb takes a patient participant expressed as S. The unmarked intransitive form of this verb *aci* 'be taken out', is also an Undergoer subject form, and the difference between it and *aci-laki* 'be all taken out' is that *aci-laki* takes a plural S argument.

39) qu tola-vi-a a lia na tamata
1sg see-TR-3sg ? one CN man
$[a]_A$ aci-a nō mai $[na\ uvi]_O$ i kayakaya
3sg remove-3sg CONT towards CN yam LOC storehouse
I saw a man taking yams from the storehouse

(Pawley & Sayaba n.d.; gloss mine)

40) sā aci-laki tuacoko mai $[ne\ iāā]_S$
PERF be.removed-AKI all towards CN goods
All the goods have been removed.

(Pawley & Sayaba n.d.; gloss mine)

Table 4.9 gives examples of other verbs which can take *-Caki* to derive an Undergoer subject form.

[9] Wayan *-Caki* can also be a transitivising suffix and occurs without *-ni* or an object pronoun as a stylistic variant (Andy Pawley pers.comm.)

Table 4.9: Wayan Fijian verbs with *-Caki*

(A) Undergoer subject verbs

aci	*be taken out, removed*
aci-laki	*be taken, removed*
aci-	*take sth out (tr.)*
bita	*be forced, weighed down*
bita-laki	*be forced down*
bita-ci-	*force sth down (tr.)*
bita-lakini-	*hurl sth down, cause sth to fall heavily (tr.)*
boro	*be painted, smeared*
boro-taki	*be put on, painted*
boro-ti-	*paint, smear (tr.)*
boro-takini-	*use sth to paint or glaze a thing (tr.)*
butu	*be assaulted*
butu-laki	*be trampled, beaten up*
butu-ki-	*stamp, tread on sth (tr.)*
butu-lakini-	*keep stamping on sth, trample sth (tr.)*
rogo	*be heard, be known from report*
rogo-vaki	*be reported*
rogo-ci-	*hear sth*
rogo-vakini-	*spread news of sth, report sth*
tawa	*be inhabited, tenanted*
tawa-taki	*be occupied for a purpose*
tawa-ni-	*occupy, inhabit (tr.)*
tawa-takini-	*fill a place, put sth into a place (tr.)*

Table 4.9 (cont)

(B) Actor subject verbs

aama	*spread all over*
aama-raki	*be spread over all parts*
aama-rakini-	*spread sth all over (tr.)*
cakacaka	*do work, labour*
cakacaka-taki	*be acted on, carried out*
cakacaka-takini-	*use sth as a means of work (tr.)*

(data from Pawley & Sayaba n.d.)

For each verb the unmarked intransitive form, the intransitive form marked by *-Caki*, and two transitive forms are given, except with *aci-* 'take sth out' which has only one transitive form. The verbs are divided into two groups, (A) and (B), on the basis of the behaviour of the unmarked intransitive form. For those verbs listed under (A) both the unmarked intransitive and the *-Caki* intransitive forms are Undergoer subject, whereas for those verbs under (B) the unmarked intransitive is Actor subject and the verb with *-Caki* is Undergoer subject. All of the forms with *-Caki* can also take the prefix *lei-*. This prefix derives Undergoer subject verbs, but implies the involvement of an agent participant in the situation denoted.

Comparison of the Undergoer subject verbs formed by *-Caki* and their transitive forms with *-Cakini* suggests that the *-Caki* forms may be derived from the *-Cakini* forms. For example, with the lexeme *boro* 'be painted, smeared' the unmarked intransitive form is an Undergoer subject verb which takes as the S argument the surface which is being painted on, as in (41). This corresponds to the transitive form *boro-ti* 'paint, smear sth' where the O argument is the surface being painted, as in (42). However, the form *boro-taki* 'be put on, painted, smeared on' which is listed as taking as the S argument the medium which is being used to do the painting, seems to correspond to the transitive form *boro-takini* 'to use sth as a paint, glaze'. As shown in (43) the O argument of this form of the verb is the medium used to do the painting.

41) sā boro nō [lea waqa o Vilive]$_S$
PERF be.painted CONT 3sgP boat PN V.
Vilive's boat is being painted.
(Pawley & Sayaba n.d.; gloss mine)

42) magā [ei]$_A$ tam boro-ti-a [na lea waqa o Ava]$_O$
CONJ 3sgS:NONPAST NEG paint-TR-3sgO CN 3sgP boat PN A.
ei na vusavusa na kai
3sgS:NONPAST FUT water.logged CN wood
If Ava doesn't paint his boat the timbers will become water-logged.
(Pawley & Sayaba n.d.; gloss mine)

43) ei tavu na kuro me sā lai viavia maka
3sgS:NONPAST be.fired CN pot CONJ PERF go FREQ glow
sā qei boro-takini-a kā [na makadre]$_O$
PERF SEQ paint-AKI-3sgO PRO CN kauri.resin
The pots are baked until they are glowing with heat and then they are glazed with kauri resin.
(Pawley & Sayaba n.d.; gloss mine)

With Undergoer subject verbs, the intransitive use of *-Caki* appears to have developed through analogy with the derivational relationship between the unmarked intransitive form of a verb and the transitive form with *-Ci*. An Undergoer subject verb in its unmarked intransitive form generally takes a patient participant as the S argument. The transitive form with *-Ci* of such a verb takes the patient participant as the O argument. This derivational relationship is shown as (i) in Figure 4.1. The subscript letters with each argument indicate the semantic role of the participant denoted. A second transitive form with *-Cakini* exists for many verbs, and as shown in (ii-b) the semantic role of the participant expressed as the O argument of a verb with *-Cakini* differs from that of the verb with *-Ci*. The presence of this second transitive form leaves an empty slot, (ii-a). Parallel to the intransitive form under (i-a) which has an S argument that corresponds in terms of semantic role with the O argument of the transitive form under (i-b), an intransitive form derived from the *-Cakini* transitive form under (ii-b) has developed, with which the S argument corresponds with the O argument. Thus slot (ii-a) in modern Wayan Fijian is filled with a structure V-*Caki* S_Z. The forms under (B) in Table 4.9 show that the derivational relationship between a transitive form with *-Cakini* and an Undergoer subject intransitive form with *-Caki* has apparently been extended to Actor subject verbs as well.

Figure 4.1: Intransitive and transitive structures of Undergoer subject verbs in pre-Wayan Fijian

	(a)		(b)
(i)	V S_X	:	V-*Ci* O_X A_Y
(ii)	_	:	V-*Cakini* O_Z A_Y

With all the verbs in Table 4.9, except *aci* 'be removed' this seems to be a possible analysis and with some verbs like *boro* 'be painted' and *aama* 'be spread all over' this seems to be the analysis which best explains the data. For *aci* 'be removed' this analysis does not hold because there is no form of the verb with the suffix *-Cakini.*

In Kara (MM) the apparent reflex of Proto Oceanic **akin[i]* is the verbal suffix *-ai.* In (44) and (45) *-ai* can be shown to have a passive function, with which the intransitive clause with *-ai* has as its S argument the participant expressed as the O argument of the corresponding transitive clause.

44) $[ri]_A$ ves-an $[a$ kar aanabe?$]_O$ pe Amerika
3plS make-EF NM car this.here PROG A.
They made this car in America.
(Schlie n.d.: 15)

45) $[a$ kar aanabe?$]_S$ a ves-**ai** ti Amerika
NM car this.here 3sgS make-DEM ABL A.
This car was made in America.
(Schlie n.d.: 16)

From these examples it appears that Kara *-ai* has a function very similar to the Micronesian passive suffixes and Wayan Fijian *-Caki.* However, *-ai* has other seemingly different functions. Schlie (n.d.: 17) labels *-ai* as a 'patient-defocussing' marker on the basis that its varying uses all seem to have the common function of de-focussing the argument denoting the patient participant in some way. In (45) above the patient participant while expressed as the S argument is apparently not the focus of the clause, rather the focus is on the location *ti Amerika* 'in America'. To place the focus on the patient the clause in (46) would be used where the verb takes the suffix *-an.*

46) a kar aanabe? a vesan-an pe Amerika
NM car this.here 3sgS make-EF PROG A.
This car was made in America.

(Schlie n.d.: 15)

In (48) the *-ai* suffix has an apparent detransitivising function, that of demoting the participant expressed as O in the transitive clause (47) to an oblique position marked by the prepositional element *se-na*. This change apparently also has the function of shifting the focus of the clause from *a wai* 'the tree' to the agent and action, *a malu a fiit-ai* 'the wind blew'.

47) [a malu]$_A$ a fiit [a wai aapave]$_O$ e vuax-e
NM wind 3sS blow NM tree that.there and break-3sO
The wind blew that tree and broke it.

(Schlie n.d.: 14)

48) [a malu]$_S$ a fiit-**ai** se-na wai aapave e vuax-e
NM wind 3sS blow-DEM CONC-3s tree that.there and break-3sO
The wind blew against that tree and broke it.

(Schlie n.d.: 14)

The *-ai* suffix can also be used to remove the orginal O argument from the clause. In (49) the O argument, indicated by the 3sg object marker *-e*, expresses the participant being asked. In (50), where the verb has the suffix *-ai*, the clause is intransitive and the participant being asked is no longer expressed.

49) na-[ne]$_A$ fi-n-[e]$_A$ pa-na suga pe la stoa
TOP-3s ask-?-3sO INST-3s sugar PROG LOC store
She/he asked him/her for sugar at the store.

(Schlie n.d.: 16)

50) na-[ne]$_S$ fi-ai pa-na suga pe la stoa
TOP-3s ask-DEM INST-3s sugar PROG LOC store
She asked for sugar at the store.

(Schlie n.d.: 16)

Kara *-ai* is also used in object incorporation constructions where the object is generic as opposed to specific. This function is demonstrated in (51), in comparison with (52).

51) na-se? tox-**ai** vua ina mamareai
TOP-who have-DEM betelnut for buying
Who has betelnut for sale?

(Schlie n.d.: 17)

52) na-se? tox-an a vua ina mamareai
TOP-who have-EF NM betelnut of buying
Who has the betelnut for sale?

(Schlie n.d.: 17)

Schlie's (n.d.) description of Kara *-ai* raises a number of questions about its use, but it is clear that *-ai* is a detransitivising reflex of Proto Oceanic **akin[i]*.

Kara is not the only Meso-Melanesian language which has intransitive uses of **akin[i]* reflexes. Kara is one of five languages spoken in north-western New Ireland, which make up the Tungag/Nalik family. Ross (1988: 291 & 377) establishes as a morphosyntactic innovation of this group that Proto Oceanic **akin[i]* became a detransitivising suffix[10]. The most detailed description of such reflexes is for Kara, however, available data from other languages show **akin[i]* reflexes with similar detransitivising uses, as demonstrated by the pairs of verbs from Tigak and Tungag given in Table 4.10.

Table 4.10: Detransitivising reflexes of **akin[i]* in Tigak and Tungag

transitive		intransitive	
Tigak			
palong-an-	*hear s.o.*	palong-ai	*hear*
akaung-an-	*praise s.o.*	akaung-ai	*give praise*
Tungag			
kel	*dig*	kel-kel-ai	*dig holes (for house posts)*
pala	*bind sth*	pal-ai	*bind*
tak	*pull sth*	tak-ai	*give a pull*

(data from Beaumont 1979: 93 and Ross 1988: 377)

[10] Ross (1988) calls this family of languages the Lavongai/Nalik group. Lavongai is another name for the Tungag language.

4.2.3 **AKIN[I]* WITH RECIPROCAL PREFIXES

Other apparently intransitive uses of **akin[i]* reflexes are their use with reflexes of the Proto Oceanic reciprocal prefix **paRi-* in several languages.

In Kara *-ai* occurs with the reciprocal prefix *fe-*. It seems to occur only when *fe-* indicates that the action is carried out by two or more participants or groups of participants. That is, *-ai* does not seem to be used when *fe-* indicates that the action is being done 'to each other'. The use of *-ai* with reciprocals also seems to be when no patient participant is mentioned, demonstrated by (53) and (54), both of which involve the reciprocal prefix *fe-* and the verb *dif* 'remove (coconut meat)'. In (53) the patient participant is expressed as O and the suffix *-an* occurs with the verb, whereas in (54) the patient participant is not mentioned and the verb takes the *-ai* suffix.

53) [ri]$_A$ fe-dif-an [a laamas]$_O$ pe la paiaman si Mapir
3plS REC-remove-EF NM coconut.meat PROG LOC dryer GEN M.
They (together) are removing the coconut meat from the shell at the coconut dryer of Mapir.

(Schlie n.d.: 20)

54) [ri]$_S$ fe-dif-**ai** pe la paiaman si Mapir
3plS REC-remove-**PDF** PROG LOC dryer GEN M.
They (together) are removing at the coconut dryer of Mapir.

(Schlie n.d.: 20)

In Tigak the detransitivising suffix *-ai* also sometimes occurs with the reciprocal prefix *e-* as in (55).

55) rik e-tu-tuk-**ai**
3pl REC-REDUP-stand-INTR
They stand about together.

(Beaumont 1979: 94)

In Wayan Fijian the 'reciprocal' prefix *vĭ-* co-occurs with *-Caki(ni)*. The basic function of *vĭ-* is to indicate that the event has two or more agents or participants acting together in some way. More specifically, with verbs *vĭ-* can indicate a plural subject acting in unison or a reciprocal relation amongst the participants of a plural subject where the participants are agents and patients (Pawley & Sayaba n.d.). Under (A) in Table 4.11

are verbs which take *vĩ-* and *-Caki(ni)* with the meaning 'to do the action denoted by the verb to or for each other' or 'to do something in unison'. Under (B) are verbs with *vĩ-* and *-Caki(ni)* indicating that the action denoted by the verb is done to several things, that is the verb takes a plural O argument. The post-verbal particle *aki* (or *yaki*) and the prefix *vĩ-* can also indicate movement or orientation in various directions. Verbs which follow this pattern are given under (C). With some verbs different allomorphs of *-Caki(ni)* with *vĩ-* have different meanings. For example, *vĩ-tuba-taki* means 'to run away together, to elope' with the 'do in unison' meaning, and this form can also have the hither and thither meaning as in *vĩ-tuba-akini-* which means 'to run away to various places'.

Table 4.11: Wayan Fijian verbs with *vĩ-* and *-Caki(ni)*

(A) plural subject			
bā-takini-	*to deny sth*	vĩ-bā-takini-	*argue, quarrel over sth*
borisi-takini-	*to be angry about sth*	vĩ-borisi-takini-	*get angry with each other on account of sth*
cavu-ti-	*mention, say, recite sth*	vĩ-cavu-lakini-	*mention things to each other*
tagi-cakini-	*cry over sth*	vĩ-tagi-cakini-	*cry for/over one another*
tuba	*run away, run off, flee*	vĩ-tuba-taki	*run away together, elope*
(B) plural O argument			
buku-takini-	*tie sth in or by a knot*	vĩ-buku-takini-	*tie things together*
cele-takini-	*open sth up, part sth*	vĩ-cele-takini-	*open or disturb and scatter things*
cōkai-takini-	*prop sth up*	vĩ-cōkai-takini-	*put props under things*
coko-vakini-	*fit sth out, equip sth fully*	vĩ-coko-vakini-	*use various things to complete or prepare a thing for use*

Table 4.11 (cont)

(C) hither and thither meaning			
basu-ki-	*break sth open*	vī-basu-yakini-	*break sth open in different places or directions*
cavu-ti-	*pull things up, remove*	vī-cavu-yakini-	*pull things up from various places*
laka	*go, proceed*	vī-laka-akini-	*go around, go to various places*
tuba	*run away, run off, flee*	vī-tuba-yaki	*flee or run away to various places*

(data from Pawley & Sayaba n.d.)

Samoan (Pn) has a verbal prefix *fe-* which has a general meaning of 'plurality of events', that is, the event denoted by the verb happened several times inolving one or usually several participants (Mosel & Hovdhaugen 1992: 180). The *fe-* prefix either occurs alone or with one of the two suffixes *-Ci* or *-Ca'i*, the latter of which is a reflex of Proto Oceanic **akin[i]*. The pattern *fe-VERB-Ca'i* is the most common one containing *fe-*. From the examples given of verbs taking *fe-* and *-Ca'i* the meaning 'plurality of events' does not seem so clear as with the forms that take *fe-* alone or with *-Ci*. Many of the examples, like those listed under (A) in Table 4.12 have the meaning of carry out the event 'with one another'. With verbs of movement or physical activity, like those under (B) the *fe-VERB-Ca'i* pattern indicates 'to and fro', 'in all directions' or 'quickly'. The forms under (C) are verbs where there does not seem to be a systematic difference between the unmarked form and the form with *fe-* plus *-Ca'i*, and those under (D) are ones which appear to contain *fe-* and *-Ca'i*, but for which synchronically the unmarked root is not attested.

Table 4.12: Samoan verbs with *fe-* and *-Ca'i*

(A) 'with one another' meaning			
finau	*argue, quarrel*	fe-finau-a'i	*quarrel one with another*
ilo	*perceive, sort out*	fe-ilo-a'i	*meet*
mata	*look*	fe-māta-a'i	*look at one another*
musumusu	*whisper*	fe-musu-a'i	*whisper to one another*
(B) 'to and fro' meaning			
agi	*blow*	fe-agi-a'i	*blow this way and that*
ato	*throw*	fe-ato-a'i	*throw about, fling around*
malaga	*travel*	fe-malaga-a'i	*travel about*
sulu	*flee*	fe-sūlu-a'i	*flee from place to place, be a fugitive*
(C) meaning of *fe-...-Ca'i* unclear			
ao	*collect, gather*	fe-ao-fa'i	*gather*
sē	*go astray*	fe-sē-a'i	*go astray*
(D) no unmarked form			
–		fesagoa'i	*gossip*
–		fesaua'i	*tangled, closely interwined*
–		fesufia'i	*consult one another*

(data from Mosel & Hovdhaugen 1992: 182-184)

In Tongan (Pn) the prefix *fe-* is described as having three functions, forming: reciprocative verbs, reciprocal verbs and communal verbs. Churchward (1953: 255-256) defines these functions as follows. A reciprocative verb is one which indicates movement to and fro or hither and thither. A reciprocal verb indicates mutuality, thus has meanings like 'with each other' or 'one another'. A communal verb indicates that two or more participants are carrying out the event denoted by the verb together or simultaneously. The prefix *fe-* can occur alone or with the *-Caki* or *-Ci* suffixes. When used with *-Caki* the derived verbs have reciprocative or reciprocal meanings as shown by the Tongan verbs listed in Table 4.13.

Table 4.13: Tongan verbs with *fe-* and *-Caki*

(A) reciprocative meaning			
'alu	*to go*	fe-'alu-'aki	*to go hither and thither*
lele	*to run*	fe-lelē-aki	*to run hither and thither*
tafe	*to flow*	fe-tāfe-aki	*to flow hither and thither*
'ave	*to take or carry*	fe-'āve-aki	*to take or carry hither and thither*
(B) reciprocal meaning			
'ita	*be angry*	fe-'ita-'aki	*to be angry with one another*
hanga	*to face*	fe-hānga-aki	*to face or be opposite each other*
puli	*to be out of sight*	fe-puli-ngaki	*to lose sight of one another*

(data from Churchward 1953: 256)

4.2.4 VERBAL PREPOSITIONS

Another way in which **akin[i]* is reflected in modern Oceanic languages is as prepositional elements that introduce oblique arguments into the clause. Such free form **akin[i]* reflexes are often classified as verbal prepositions. Verbal prepositions are a small class of words found in many Oceanic languages which show characteristics of both verbs and prepositions. Like prepositions they introduce an oblique argument and like verbs they take the verbal object suffixes or enclitics to index their object.

In Tolo (SES) there is a preposition *hini-* glossed as 'with' or 'about, concerning' which takes the verbal object suffixes (Crowley 1986: viii-ix & 14). Sentences (56) and (57) give examples of the use of *hini-*.

56) nau kala hai **hini**-a isi
1sg cut tree **PREP**-3sg knife
I cut the tree with a knife.

(Crowley 1986: 14; gloss mine)

57) linge neni hira linge **hini**-a mauri-na sau
song this 3pl sing **PREP**-3sg life-3sgP ?
In this song they're singing about life in the past.
(Crowley 1986: 14; gloss mine)

Tamambo (SO) has a preposition with the forms *hina* and *hini* which introduces oblique arguments with a range of semantic roles including: partitive, where the verb indicates transfer of an amount or quantity of an entity away from the subject, (58); theme (59); locutional topic (60); source or cause of emotion (61); and goal or cause of some attitude (62). The form *hina* occurs before common nouns and appears to reflect the coalescence of **hini* and the common noun article **na*. The form *hini* occurs before names, close kin terms, object pronouns and the anaphoric pronoun *mwende* 'particular one', and may reflect the coalescence of **hini* and the personal article **i* (Jauncey 1997: 61-62, 111-113, Malcolm Ross pers.comm.).

58) voi mo sile-au **hina** tua-i ti
mum 3sg give-O:1sg **PREP** some-LINK tea
Mum gave me some tea.
(Jauncey 1997: 61)

59) o tinerani **hina** lulungi watitina
2sg watch.out **PREP** wave PL.big
Look out for the big waves!
(Jauncey 1997: 61)

60) ku-mbo ta stori **hini** mwende atea niani
1sg-FUT REP tell.story **PREP** particular.one one here
I'll have another chat about one particular thing here ...
(Jauncey 1997: 62)

61) mo-le mangisi **hina** na-natu-na
3sg-TA happy **PREP** PL-child-P:3sg
He is proud of his children.
(Jauncey 1997: 62)

62) ... ka domtau **hini**-ho matan ...
1pl believe **PREP**-O:2sg because
... we believe in you because ...
(Jauncey 1997: 62)

In Woleaian one reflex of **akin[i]* is the verbal preposition *yagili* which generally has the meaning of 'with' or 'carrying' as in (63), but also has other meanings. Thus in (64) it introduces the participant which is the stimulus of an emotion verb. The forms *mmwuta-agili* 'vomit something' and *gabeta-agili* 'yell for', given in (65) and (66), are listed in the Woleaian dictionary (Sohn & Tawerilmang 1976) as being verb compounds, suggesting that there is a very close connection between the verb stem and the verbal preposition.

63) teo yagili tog
crawl AKI DIR
Crawl this way with it.

(Sohn 1975: 287; gloss mine)

64) i sa ker yagili-g
1sg PERF be.happy AKI-2sg
I am proud of you. (lit: I am happy with you.)

(Sohn 1975: 287; gloss mine)

65) ye mmwuta-agili metta
3sg vomit-AKI what
What did he vomit?

(Sohn 1975: 287; gloss mine)

66) i gabeta-agili John be ye lag
1sg yell-AKI J. CONJ 3sg DIR:away
I yelled for John to go.

(Sohn 1975: 287; gloss mine)

Sohn (1975: 284) notes several grammatical properties of verbal prepostions in Woleaian. Like transitive verbs they do not occur without an object suffix and the suffixes used are the same as those which occur with transitive verbs. Like other prepositions (and unlike verbs) they function as the head of an adjunct. Also the choice of verbal preposition is dependent on the verb, particular prepositions being used with particular verbs. Adjuncts with verbal prepositions are the first adjunct to occur in the clause and even precede the object noun phrase, but not the object suffix. They also precede the subject noun phrase which occurs post-verbally. Directional particles and adverbs also follow verbal prepositions, and as in (67) the object suffix of the verbal preposition occurs on the adverb (just as an adverb will take the object suffix of a transitive verb). From these properties it can be seen that the verbal preposition is closely associated with

and often contiguous to the verb. However, it is not part of the verb complex as a noun phrase can occur between the verb complex and a verbal preposition.

67) ye sa teo yagili fengan-iir tag
3sg PERF climb AKI ADV.together-3pl DIR:up
He has carried all of them up.

(Sohn 1975: 285; gloss mine)

Tongan also has a prepositional reflex of **akin[i]*. Churchward (1953: 119-120) classifies Tongan *'aki* as a prepositional element, rather than a true preposition, because several aspects of its behaviour are more verbal than prepositional. Thus, like verbs, a noun following *'aki* is frequently introduced by *'a*, an element usually introducing transitive objects or intransitive subjects, and like a verb *'aki* takes the *kae* form of the distinctional conjunction, rather than the form *ka*. *'Aki* introduces oblique arguments with various semantic roles, the most fundamental of which is the instrumental, shown in (68). The form *'aki* is also used to introduce a medium role with verbs of making, as in (69). In (70) *'aki* is used with the meaning of 'to the extent of' and (71) *'aki* has the meaning of 'in exchange for'. The usual position of *'aki* is post-verbal, occurring before the direct object noun phrase, as in (68), although as in (70) *'aki* can occur directly preceding the oblique noun phrase.

68) fō **'aki** ho 'ū kofú ha vai mafana mo ha koa
wash AKI POSS:2sg PL clothing ART water warm CONJ ART soap
Wash your clothes with warm water and soap.

(Churchward 1953: 120; gloss mine)

69) 'oku ngaohi eni **'aki** 'a e mohuku
PRES make DEM AKI ABS ART grass
This is made of grass.

(Churchward 1953: 120; gloss mine)

70) kuo hiki hake hono totongí
PERF raise upwards POSS:3sg price
'aki 'a e silini 'e hongofulu ki he toni
AKI ABS ART shilling PRT ten PREP ART ton
Its price has been raised by ten shillings a ton.

(Churchward 1953: 120; gloss mine)

71) kuó u fakatau atu 'eku pasikalá
PERF 1sg sell towards POSS:1sg bicycle
'aki e sōvaleni 'e hongufulu
AKI ART sovereign PRT ten
I have sold my bicycle for ten pounds.

(Churchward 1953: 120; gloss mine)

4.2.5 USE AS A TRACE ELEMENT

In Bauan Fijian the apparent free form reflex of **akin[i]* has a slightly different function from that found in other languages. The Bauan reflex is *kina*, apparently derived from a form **kini-* and the 3sg object enclitic **=a*, and is an anaphoric element which is left as a trace when an oblique inanimate noun phrase is topicalised or relativised (Pawley n.d.: 6). This function is demonstrated by sentences (72) and (73).

72) na kau oqo au moku-t-a **kina** na koli
ART stick this I hit-TR-it **with:it** ART dog
This is the stick with which I hit the dog.

(Pawley 1973: 146)

73) na uvi na kā sā dau voli **kina** na kuro
ART yam ART thing ASP HABIT buy **with:it** ART pot
Yams are things with which pots are generally bought.

(Pawley n.d.: 6)

A similar function is found with Tongan *'aki*. In (74) *'aki* follows the verb *ha'i* 'bind' in the second clause and is the pronominal trace of the instrumental participant *maea* 'rope' already mentioned in the first clause. Tongan *'aki*, used as an anaphoric element, refers to the same types of participants which can be introduced with the prepostional *'aki* (Churchward 1953: 148).

74) na'á ne to'o 'a e maea
PAST 3sg take ABS ART rope
'o ne ha'i **'aki** hoku ongo nima
CONJ 3sg bind **AKI** POSS:1sg DL hand
He took a rope and bound my two hands with it.

(Churchward 1953: 148; gloss mine)

4.3 APPARENTLY PHONOLOGICALLY-REDUCED REFLEXES OF **AKIN[I]*

In a number of Oceanic languages there are transitivising affixes which appear to reflect a form **-ni*. Often the functions of such forms are similar to those of more obvious reflexes of **akin[i]* in terms of the types of participants denoted and also in terms of constrasting with a transitive suffix reflecting **-i*. This section describes the modern uses of several forms reflecting an apparent **-ni* which may be related to **akin[i]*[11].

Hoava (MM) has an applicative suffix of the form *-ni*, the different usages of which are determined by the type of verb to which it is attached. Davis (1997: Section 5.2) describes Hoava verbs in terms of six types, four of which can occur with *-ni*. With Type III verbs, which primarily denote emotional and physical states of animate beings, the applicative suffix allows the cause or reason of the event or state to be expressed as O[12]. For example, in (75) the verb *korakora* 'be angry' is used in its intransitive form with an experiencer participant expressed as S. In (76) the verb takes the suffix *-ni* and a cause participant is expressed as O.

75) korakora se [Vezi]$_S$
angry ART Vincent
Vincent is angry.

(Davis 1997: Section 5.3.2)

76) korakora-**ni**-a [sa]$_A$ [se Amina]$_O$
angry-APP-3SG PRO:3SG ART A.
He's angry with Amina.

(Davis 1997: Section 5.3.2)

Type IV verbs in Hoava include those denoting movement, direction, posture, sensory and mental perception, and speech. The applicative suffix with these verbs introduces an O argument of a different semantic role than that which occurs with the verb plus the transitive suffix *-i* (Davis 1997: Section 6.3.5.1). With verbs of movement and direction *-ni* allows a concomitant role as the O argument, rather than the location-type

[11] The languages described here are Hoava, Teop and Lewo, all of which have a transitiviser *ni*. It is possible that Erromangan (SO) could be added to this list as it has a transitivising suffix *(o)gi* /oŋi/. However, whether this form reflects an earlier **ni* (or **ŋi*) or is an irregular reflex of **aki* (without **ni*) is not clear. Erromangan also has a preposition *(o)gi* (Crowley 1998). Two other languages spoken in southern Vanuatu also have transitivising suffixes which could reflect an earlier **ni* or **ŋi*, namely Anejom̃ *-ñ* and Ura *-ŋi* (Lynch 2001).

[12] A participant which directly brings about the event or state, and thus has an agentive role, is expressed as the A argument of the verb with the causative prefix.

role which the transitive suffix allows, as demonstrated by (77) and (78). In (77) the verb *haqala* 'run' occurs with the transitive suffix *-i* and the O argument denotes the location of the event. In (78), where the verb occurs with the applicative suffix *-ni*, the O argument denotes a concomitant participant. Movement and posture verbs with *-ni* also allow the motive or purpose for the event to be expressed as the O argument, as in (79).

77) haqal-i-a [sa boko]$_A$ [sa soana]$_O$
run-TR-3sg ART:SG pig ART:SG path
The pig ran on the path.

(Davis 1997: Section 5.3.2)

78) haqala-**ni**-a [sa boko]$_A$ [sa sidolo]$_O$
run-**APP**-3sg ART:SG pig ART:SG noose
The pig ran with the noose.

(Davis 1997: Section 5.3.2)

79) tiva loka-ni-[a]$_O$ qa [Biliboa]$_A$
stand wait-APP-3sg REST B.
Biliboa just stood and waited for it.

(Davis 1997: Section 6.3.5.1)

Verbs of sensory and mental perception take as the O argument with the transitive suffix the entity perceived, as in (80), whereas in (81) where the verb takes *-ni* the O argument denotes the content. With verbs of speech the O argument is the addressee with the transitive suffix and the content of speech with the applicative suffix, as shown by (82) and (83).

80) uman-i-a [ria]$_A$ se Biliboa
hear-TR:3sg PRO:3pl ART B.
They heard Biliboa.

(Davis 1997: Section 5.2.4)

81) umana-**ni**-a [ria]$_A$ [se Biliboa pu va-mate-na sa boko]$_O$
hear-APP-3sg PRO:3pl ART B. REL CAUS-be.dead-3sg ART:SG pig
They heard of Biliboa who had killed the pig.

(Davis 1997: Section 5.2.4)

82) la eri karu, nanas-i-a [se Masu]$_O$
go PRO:3pl two ask-TR-3sg ART M.
They (two) went and asked Masu.

(Davis 1997: Section 6.3.5.1)

83) nanasa-**ni**-a [sa]$_A$ [sa meapu]$_O$
ask-**APP**-3sg PRO:3sg ART:sg map
He asked about the map.

(Davis 1997: Section 6.3.5.1)

Type V verbs are generally those denoting physical actions directed towards some other participant, including forms such as *pota* 'hit', *tege* 'chop', *ŋani* 'eat' and *tevete* 'make, do'. With these verbs *-ni* allows a second O argument to be present in the clause, usually expressing an instrument participant. In (84) the verb *ɣona* 'to pelt' is used transitively and the O argument expresses the patient participant. In (85) this verb is used with the applicative suffix *-ni* and an instrument participant is expressed as a second O argument. In such clauses the object suffixes index the primary or original O argument, (labeled O) and the secondary or applied O argument (labeled O2) is placed directly following the verb phrase and is generally not marked by an article, although it can be modified in other ways (Davis 1997: Section 6.3.3). If the instrument participant is more prominent in the discourse, the primary and secondary O arguments may be reversed. For example, in (86) the instrument participant is expressed as O, occurring with an article in clause-final position, and the patient participant is expressed as O2, occurring post-verbally and unmarked by an article (Davis 1997: Section 6.3.3).

84) goná [sa makariva]$_A$ [sa siki]$_O$
pelt.TR.3sg ART:sg boy ART:sg dog
The boy pelted the dog.

(Davis 1997: Section 5.3.2)

85) gona-**ni**-a [magara]$_{O2}$ [sa makariva]$_A$ [sa siki]$_O$
pelt-**APP**-3sg stone ART:SG boy ART:SG dog
The boy pelted the dog with a rock.

(Davis 1997: Section 5.3.2)

86) teqe-**ni**-a [qato]$_{O2}$ [Deni]$_A$ [sa leboto]$_O$
cut.down-**APP**-3sg tree D. ART:SG machete
Deni cut a tree down with the machete.

(Davis 1997: Section 6.3.3)

Verbs with the causative prefix *va-* are also Type V forms, regardless of the verb class of the underived stem. Causative forms derived from Type I, II and III verbs take *-ni* with the same function as with underived Type V verbs. That is, with *-ni* such forms take two O arguments, with O2 denoting an instrument participant. Thus in (87) the causative form of the verb *mate* 'be dead' is used. In (88) this derived verb occurs with the applicative suffix *-ni* and an instrument participant is expressed as O2 (Davis 1997: Section 5.2.5). In (89) this usage of *-ni* is demonstrated with the causativised form of *ziŋara* 'be red'.

87) va-maté-a [sa boko]$_O$
CAUS-be.dead:TR-3sg ART:SG pig
Kill the pig.

(Davis 1997: Section 5.2.5)

88) va-mate-**ni**-a [qato]$_{O2}$ [sa boko]$_O$
CAUS-be.dead-**APP**-3sg stick ART:SG pig
Kill the pig with a stick.

(Davis 1997: Section 5.2.5)

89) [na sa]$_{O2}$ va-ziŋara-**ni**-[a]$_O$ [gamu pi]$_A$
ART what CAUS-red-**APP**-3sg PRO:2pl PRO:close
What do you use to make it go red?

(Davis 1997: Section 6.3.4)

There are two verbs, *vale* 'give' and *poni* 'give', with which *-ni* appears to mark a recipient participant as O. One of these, *vale* 'give', is a Type V transitive verb which takes the theme participant expressed as O and the recipient participant is expressed as the object of a preposition, as in (90).

90) sumi valé [rao]$_A$ [karu igana]$_O$ [te Amina]$_{PP}$
PERF give:TR:3pl PRO:1sg two fish PREP A.
I have given two fish to Amina.

(Davis 1997: Section 5.2.6)

With the applicative suffix *-ni*, this verb takes the recipient participant as O, occurring clause-finally and indexed on the verb, and the theme participant is expressed as O2, occurring in post-verbal position. This is demonstrated in (91).

91) vale-**ni**-a [igana]$_{O2}$ [rao]$_{A}$ [sa koburu]$_{O}$
give-APP-3sg fish PRO:1sg ART:SG child
I gave the child fish.

(Davis 1997: Section 6.3.2)

Poni 'give' is in a class of its own, Type VI. It is a ditransitive verb which usually takes a recipient participant as O, that is, clause-finally and indexed on the verb, and the theme participant as O2, that is, in post-verbal position. This type of structure is shown in (92). *Poni* 'give' can take the applicative suffix *-ni* with no apparent change in structure, as in (93).

92) poní [mahu]$_{O2}$ [Amina]$_{A}$ [ria koburu]$_{O}$
give:TR:3pl sweet.potato A. ART:PL child
Amina gave the children sweet potato.

(Davis 1997: Section 6.2.5)

93) poni-**ni**-a [ŋinani kina-di]$_{O2}$ [sa]$_{A}$ [sa tu-na]$_{O}$
give-APP-3sg food cook-3pl PRO:3sg ART:SG child-3sg
She gave her child cooked foods.

(Davis 1997: Section 6.3.2)

Another function of *-ni* in Hoava is that it can be used with passive verbs to allow the expression of an agent participant. Hoava has a productive passive prefix *ta-* which allows the patient participant of an active verb to be expressed as S. This is demonstrated by (94), which shows the passive form of the verb *ŋani* 'to bite'. The applicative suffix *-ni* when attached to a passive verb allows the agent participant to be expressed in the clause, as in (95). This construction is used only with non-human or generic human agents. If the agent is specific and human it is expressed as a prepositional phrase (Davis 1997: Sections 5.7.7 & 6.4). Davis (1997: Section 5.7.7) suggests that here *-ni* has a similar function to its use with Type III verbs, allowing the participant regarded as the cause of the event to be expressed.

94) ta-ŋani [sa nikana]$_{S}$
PASS-bite ART:SG man
The man was bitten.

(Davis 1997: Section 5.3.2)

95) ta-ŋani-**ni**-a [sa nikana]$_A$ [sa siki]$_O$
PASS-bite-APP-3sg ART:SG man ART:SG dog
The man was bitten by the dog.

(Davis 1997: Section 5.3.2)

Teop (MM) has a transitivising particle *ni* which has some similar functions to Hoava *-ni*. The semantic role of the participant denoted by the O argument introduced by *ni* is predictable from the lexical semantics of the verb. With psychological verbs *ni* allows the verb to take as O argument a stimulus or target role, as in (96). Verbs of speech or thought used with *ni* take an O argument denoting the content of speech or thought, demonstrated by (97). When used with activity verbs *ni* allows as the O argument the instrument used to carry out the action, as in (98). One example is given of *ni* used with a motion verb and in this case the object is the source, as in (99). With verbs of physiological reactions *ni* introduces a cause role as the O argument, thus *dadana ni* 'shake, shiver of', *mate ni* 'die of' and *tagune ni* 'wake up from' (Mosel & Spriggs n.d.: 70-73 and Mosel & Reinig n.d.: 4-6). Teop *ni* can also be added to stative verbs to allow a cause participant as the O argument, thus *hapusu* 'be full' becomes *hapusu ni* be full of' (Ulrike Mosel pers.comm.).

96) e-naa na hevee kurusu **ni** nom e bubuu
ART-1sg RL angry very TR IMP.1sg ART granny
I am very angry with granny.

(Mosel & Spriggs n.d.: 70-71)

97) na moroko **ni** rori bona puana
RL talk TR IMP.3pl ART war
They're talking about the war.

(Mosel & Spriggs n.d.: 71)

98) tara, e Kakato na pita bata **ni** nana bono itokoro
look ART K. RL walk SIMUL TR IMP.3sg ART walking.stick
Look, Kakato is walking with a walking stick.

(Mosel & Spriggs n.d.: 72)

99) e Kakato na rosin **ni** bono toro
ART K. RL run TR ART boat
Kakato is running from the boat.

(Mosel & Spriggs n.d.: 72)

With some transitive verbs *ni* appears to increase the semantic transitivity, in the sense that the O argument with the verb plus *ni* is more highly affected than the O argument of the unmarked form of the verb. For example, *ato* is a transitive meaning 'to touch sth', and the form *ato ni* means 'to hold onto sth' (Mosel & Reinig n.d.: 5-6).

A number of other Meso-Melanesian languages, including Roviana, Nduke, Ganoqa, Bali-Vitu and Mono-Alu also have applicative suffixes of the form *-ni*.

Lewo (SO) also has an applicative suffix of the form *-ni*. In Lewo *-ni* appears to be the productive transitivising morpheme. Intransitive verbs transitivised with *-ni* take as the O argument participants in a range of non-patient semantic roles, including purpose, goal, locational goal, path, cause, instrument, manner complement, object of comparison, and locational complement (Early 1994: 304). The semantic role of an object of a verb taking *-ni* is not entirely predictable, however, the following generalisations appear to hold (Early 1994: 307):

a) with intransitive motion verbs, the object appears to have a 'broad' semantic role of goal (100);
b) with intransitive verbs of emotion and psychological state, the object has the semantic role of cause (101); and
c) with intransitive activity verbs the role of the object is said to be that of manner (including intstrument) (102).

100) Ø-kiri-ri-**n** uṁa
3sS-run-RED-**TR** home
He's running for home.

(Early 1994: 305)

101) Ø-tagi-**n** sine-ena
3sS-cry-**TR** gut-NOM
Crying from sorrow.

(Early 1994: 305)

102) a-m-yavia-**n** sa-la narin na-kra-krae-na lala
3pS-R-play-**TR** POSS-3pP small NOM-REDUP-play-NOM PL
They're playing with their small toys.

(Early 1994: 305)

Lewo *-ni* can also occur with stative intransitive verbs, allowing the presence of an O argument, as in (103) where the verb *wo* 'be good' occurs with *-ni*.

103) lele nene Ø-po-n puluk lala
place DEIC 3sS-R.good-TR cattle PL
This area is good for cattle.

(Early 1994: 309)

The suffix *-ni* in Lewo can also occur with transitive verbs where one of its functions is to rearrange the valency of the verb, whereby the verb takes as the O argument a participant of a different semantic role than it would without *-ni* (Early 1994: 315-316). In (104) the verb *pio* 'call' takes the addressee as O, whereas in (105) where the verb occurs with *-ni* and the O argument denotes the content.

104) ne-pio-ko
1sS-R.call-2sO
I called you.

(Early 1994: 315)

105) kei yaru tai Ø-pio-n ke Ø-sape si Ø-mema
EXCL man ART 3sS-R.call-TR TA 3sS-say sea 3sS-dry
Gosh, someone's calling out that the sea is dry (tide is out)!

(Early 1994: 316)

This suffix can also be used to form a ditransitive construction. In such clauses the verb is followed directly by an object suffix indexing the primary object and the *-ni* suffix occurs following this object suffix. The secondary object may be indicated by an object suffix attached to the verb complex following the *-ni* suffix or by a noun phrase and is the syntactic object of the construction (Early 1994: 318)[13].

106) naga Ø-m-iila-nu-ni-a
3s 3sS-R-send-1sO-TR-3sO
He sent me for it.

(Early 1994: 318)

[13] It seems likely that this *-ni* may have a different historical source. It behaves in a similar way to the Manam (NNG) benefactive suffix *-n*, which Lichtenberk (1985) suggests reflects a grammaticalised form of the verb **pani* 'give'.

The transitivising suffix *-ni* in Lewo has a number of different allomorphs, including *-ni*, *-ini*, *-uni* and *-ani*. The allomorphy is in part phonologically conditioned, with consonant-final verbs taking *-ini* or *-uni* depending on the preceding vowel of the verb root, and with *a-* or *e*-final verbs taking *-ani*. However, there are exceptions to these generalisations and some vowel-final verbs take *-ni*. All the allomorphs occur without the final *i* vowel in word-final position, following the general high vowel deletion rule (Early 1994: 301 & 326-327).

Two of Papuan Tip languages, Saliba and Buhutu, also have applicative suffixes of the form *-ni*. In Saliba it is one of several allomorphs of the single applicative suffix and may reflect the transitive suffix **-i* and an initial thematic consonant (Margetts 1999: 150)[14]. In Saliba the applicative suffix also has the forms *-i* and *-ei* and appears to reflect a merging of both original **-i* and **aki*. Buhutu has two applicative suffixes *-i* and *-ni* which are apparently lexically determined (Russ Cooper pers.comm.). Again, however, *-ni* may reflect an original **-i* with an initial thematic consonant. This hypothesis is supported by the fact that one verb which takes *-ni* is *husa* 'to load', a reflex of Proto Oceanic **lujan* 'to load'. Obviously more data is needed from Buhutu before any clear hypotheses about the history of *-i* and *-ni* can be made.

4.4 **AKIN[I]* COGNATES IN NON-OCEANIC LANGUAGES

Proto Oceanic **akin[i]* has cognates in the non-Oceanic Austronesian languages of Indonesia. The forms and functions of such cognates provide crucial external evidence in proposing a detailed reconstruction of the Proto Oceanic form, as will be seen in the following chapter. This section describes apparent cognates of **akin[i]* in several non-Oceanic languages.

Karo Batak is a Western Malayo-Polynesian language spoken in northern Sumatra, Indonesia. Its apparent cognate of Proto Oceanic **akin[i]* is a suffix *-ken*. The suffix *-ken* derives transitive verbs from a range of word classes with several different meanings. When attached to adjectives, intransitive verbs or nouns *-ken* has a broadly causative function, with a general meaning of 'to make the patient/agent become or do ROOT'. For example, *kabang* means 'to fly' and *kabang-ken* means 'to make fly'. Forms which take *-ken* with this usage are given under (A) in Table 4.14. With noun roots denoting containers *-ken* has the more specific meaning of 'to put the patient into ROOT',

[14] This would reflect an irregular sound correspondence, as Proto Oceanic **n* is usually lost before *i* in Saliba (see Cooper 1975).

as demonstrated by the forms derived from *karang* 'pen' and *sumpit* '(rice) sack'. The final example under (A) shows how *-ken* with this causative function can be attached to phrasal stems (Woollams 1996: 56-58). The examples under (B) and (C) in Table 4.14 show the applicative function of *-ken*. With verbs of cognition and communication *-ken* allows as O argument participants with a role of stimulus or theme (Woollams 1996: 58). Often derivatives with *-ken* take as the O argument participants with the role of instrument (Woollams 1996: 59). The fourth use of *-ken* seems to be somewhat different. Many pseudo-reflexive verbs, like those given under (D) in Table 4.14, occur with the *-ken* suffix. Pseudo-reflexives are like reflexives in that in active clauses the object slot takes *bana* 'self' and in passive clauses they take a dative prepositional phrase comprising a personal pronoun agreeing in person and number with the agent, optionally preceded by the prepositional *man*. Unlike reflexives, with pseudo-reflexives the *bana* object and the dative prepositional phrase are optional and often left out. Verbs used as pseudo-reflexives include: those denoting individual bodily functions; certain motion verbs; certain complement-taking verbs and verbs of pretence and self-delusion (Woollams 1996: 59 & 204-209).

Table 4.14: Functions of *-ken* in Karo Batak

(A) causative function			
keri	*depleted*	keri-ken	*to deplete, use up*
belin	*big*	belin-ken	*to make big, exaggerate*
pajek	*vertical*	pajek-ken	*to erect, make stand up*
kabang	*to fly*	kabang-ken	*to make fly, blow away*
rëh	*to come*	rëh-ken	*to make come, summon*
tading	*to stay*	tading-ken	*to make remain, leave behind*
pekara	*lawsuit*	pekara-ken	*to turn into a legal matter*
kiré-kiré	*screen*	kiré-kiré-ken	*to use as a screen*
karang	*pen, corral*	karang-ken	*to put into a pen*
sumpit	*(rice) sack*	sumpit-ken	*to bag (rice)*
penggel dua	*broken in two*	penggel-dua-ken	*break in two*
(B) applicative function - theme/stimulus object			
begi	*to hear*	begi-ken	*to listen to*
rukur	*to think*	urkur-ken	*to think about, contemplate*

Table 4.14 (cont)

	rarih	*to deliberate*	arih-ken	*to deliberate over*
	ngerana	*to talk*	rana-ken	*to talk about, discuss*
(C)	**applicative function - instrument object**			
	beré	*give*	beré-ken	*give sth*
	surat	*(write)*	surat-ken	*write with*
	ambek	*(throw)*	ambek-ken	*throw (stone)*
	tukur	*buy*	tukur-ken	*spend (money)*
	bidé	*fence*	bidé-ken	*to fence with*
(D)	**pseudo-reflexives**			
	kiam	*run*	kiam-ken	*(make oneself) run off, escape*
	tahan	*endure*	tahan-ken	*(make oneself) endure, stand*
	berkat	*leave*	berkat-ken	*(make oneself) depart*
	sirang	*part*	sirang-ken	*drag oneself away*

(data from Woollams 1996: 57-59)

Transitive stems derived with *-ken* are inflected with the appropriate voice marker (*N-*, *i-* or zero) when used in clauses (Woollams 1996: 61), as shown by the sentential examples of forms with *-ken* given in (107) and (108).

107) é maka la lupa ia **notoken** mbuah pagé
and so not forget they ACT.pray.**PREP** much rice
Nor did they forget to pray for a bountiful crop.

(Woollams 1996: 58)

108) éta lebé kita, sitading**ken** ia
HORT first we we.stay.**CAUS** he
Come on, let's go ahead, we'll leave him behind.

(Woollams 1996: 58)

Karo Batak has a causative prefix *pe-* which functions in a very similar way to the causative uses of *-ken*, but which occurs more frequently. Some, but not all, roots which take *pe-* also have forms with *-ken*. There may be no difference between the *pe-* derivative and the *-ken* derivative, as with the examples below.

pe-sikap	keperluan	=	sikap-ken	keperluan
CAUS-be.ready	needs		be.ready-CAUS	needs

to prepare what is needed, make provisions ready

(Woollams 1996: 60)

Where the two forms differ it may be regarding: a) the argument denoting the patient; or b) the argument denoting the agent (Woollams 1996: 59-60). Forms derived with *pe-* occur with more concrete patient participants and those derived with *-ken* with more abstract ones. Examples showing this contrast are given below.

pe-sëh	berita	*to pass on news (make the news arrive)*
CAUS-reach	news	
nëh-ken	sura-sura	*to accomplish one's ambitions*
reach-CAUS	ambitions	
pe-cidah	uis	*to show off a garment (let it be seen)*
CAUS-see	garment	
cidah-ken	ukur	*to reveal what is in one's mind*
see-CAUS	mind	

(Woollams 1996: 59-60; gloss mine)

In terms of the agent participant, *pe-* derivatives require a human (or personfied) participant, whereas *-ken* derivatives may have an inanimate one. This suggests that the *pe-* causative entails an element of intentionality which is not necessarily present with *-ken* causatives. Support for this comes from the fact that the 'accidental' prefix *ter-* may co-occur with *-ken*, but not with *pe-* (Woollams 1996: 59-60). Also *pe-* and *-ken* can co-occur with some verbs. With adjectival roots the *pe-..-ken* circumfix has a more intensive causative meaning than the form derived with *pe-* alone (Woollams 1996: 62), as demonstrated by the examples under (A) in Table 4.15. With the few intransitive verb stems which take *pe-..-ken* the derived form has a straightforward causative function and with these stems no *pe-* or *-ken* derivatives are known to exist (Woollams 1996: 62). Examples are given under (B) in Table 4.15. A few transitive verbs can take *pe-..-ken*, and the derived form means 'to cause the agent to be affected by the action denoted by the verb' (Woollams 1996: 62), as shown by the examples under (C). And finally *pe-..-ken* can be added to fully reduplicated adjectives (and some nouns) deriving a transitive verb stem used only in reflexive constructions (Woollams 1996: 63). Examples are given under (D) in Table 4.15.

Two other prefixes which are used with *-ken* are *er-* and *per-*. *Er-* derives intransitive verb stems which are typically stative in meaning. *Er-..-ken* derives intransitive verbs from nouns which take another noun as complement (Woollams 1996: 65-67). Examples of this derivation are given under (E) in Table 4.15. The circumfix *per-..-ken* derives transitive verbs from mainly intransitive stems with *er-*. This derivation has either an applicative or a causative function (Woollams 1996: 64), similar to those of *-ken* used alone. Examples of *per-..-ken* forms are given under (F) in Table 4.15. [15]

Table 4.15: Karo Batak circumfixes with *-ken*

(A)	***pe-..-ken***	**intensive causative**		
	pe-biring	*to blacken*	pe-biring-ken	*to make blacker*
	pe-ganjang	*to put up high*	pe-ganjang-ken	*to put up even higher*
	pe-huli	*to make good, repair*	pe-huli-ken	*to make better, improve*
(B)	***pe-..-ken***	**causative**		
	sirang	*to separate*	per-sirang-ken	*to cause to separate*
	pinem	*(drink)*	pe-pinem-ken	*to make drink, suckle*
(C)	***pe-..-ken***	**with transitve stems**		
	beteh	*(know)*	pe-beteh-ken	*to have sth made known, to announce*
	tepa	*to forge*	pe-tepa-ken	*to have sth forged*
	tandai	*to be acquainted with*	pe-tanda-ken	*to make s.o. be acquainted with, introduce*
(D)	***pe-..-ken***	**as reflexives**		
	beluh	*clever*	pe-beluh-beluh-ken	*to pretend to be clever*
	tua	*old*	pe-tua-tua-ken	*to act grown-up*
	lebé	*front*	pe- lebé- lebé-ken	*to act number one*

[15] Besides the functions described here *-ken* is also a mood marker, occurring with locative prepositional phrases of direction, intransitive verbs, transitive verbs and some adjectives to indicate imperative mood (Woollams 1996: 50).

Table 4.15 (cont)

(E)	***er-..-ken***	**intransitive verb**		
	nakan	*staple food*	er-nakan-ken gadung	*to have sweet potato*
	gadung	*sweet ptoato*		*for one's staple*
	uis	*clothing*	r-uis-ken guni	*to wear a sack for*
	guni	*sack, hesian bag*		*clothing*
	tarum	*thatch*	er-tarum-ken ritik	*to have a roof made*
	ritik	*bean stalks*		*from bean stalk thatch*
(F)	***per-..-ken***	**applicative and causative**		
	ernipi	*to dream*	per-nipi-ken	*to dream about*
	erkuan	*to speak*	per-kuan-ken	*to be on speaking terms with*
	germet	*perceptive*	per-germet-ken	*pay attention to*
	erjuma	*to work the fields*	per-juma-ken	*to have s.o. work in one's fields*
	erkawan	*to work as a slave*	per-kawan-ken	*to enslave*

(data from Woollams 1996: 62-64, 67-68)

Toba Batak is a Western Malayo-Polynesian language of northern Sumatra quite closely related to Karo Batak. The suffix *-hon* (which has allomorphs *-pon*, *-ton* and *-kon*, the phonological conditioning of which is not relevant here) has several different functions, examples of which are given in Table 4.16. This suffix is used in conjunction with a number of different prefixes, the most common one seeming to be *mang-* and its different allomorphs. With certain intransitive verbs *-hon* appears to have a causative function, examples of which are given under (A) in Table 4.16. The other functions of *-hon* seem to be applicative ones and allow different types of O arguments to occur. With certain dynamic verbs *-hon* allows the reason to be expressed as the O argument, as demonstrated by those verbs given under (B) (Van der Tuuk 1971: 103 & 112). With some of these verbs the prefix is *mar-* rather than *mang-*. With dynamic verbs *-hon* can also allow an instrument to be expressed as the O argument, as shown under (C) in Table 4.16 (Van der Tuuk 1971: 103-104). In this function with transitive verbs *-hon* allows the instrument, otherwise expressed as the object of a preposition, to be the O argument, as can be seen from (109) and (110). In (109) the verb is not marked with *-hon* and the patient participant is expressed as O while the instrument, *tukkot* 'stick' is expressed as object of the preposition *dohot*. In (110) the verb has the suffix *-hon* and the instrument

participant, *tukkot* 'stick', is expressed as the O argument and the patient participant, *bijang* 'dog', is expressed as the object of the preposition *tu* (Van der Tuuk 1971: 103).

109) ... mamalu bijang dohot tukkot
... hit dog PREP stick
... *to hit a dog with a stick*

(Van der Tuuk 1971: 103; gloss mine)

110) ... mamalu-**hon** tukkot tu bijang
... hit-**hon** stick PREP dog
... *to strike with a stick at a dog*

(Van der Tuuk 1971: 103; gloss mine)

With a couple of motion verbs *-hon* appears to introduce a concomitant object, as shown under (D) in Table 4.16. Under (E) are examples of verbs where *-hon* marks as object the beneficiary participant. This is a function of *-hon* that is only rarely found (Van der Tuuk 1971: 105). Forms without *-hon* are not given for all the verbs in Table 4.16, as in some instances Van der Tuuk (1971) gives only the form with *-hon*.

Table 4.16: Functions of Toba Batak *-hon*

(A)	**causative function**			
			mandjadi-hon	*cause sth to be*
			matsega-hon	*spoil, smash sth*
(B)	**applicative function - reason object**			
			mamodoppon	*sleep because of sth*
	mekkat	*to limp*	mangekkatton	*limp because of sth*
	marbada	*to quarrel*	marbadahon	*quarrel on account of sth*
	mardalan	*to travel*	mardalatton	*travel because of sth*
(C)	**applicative function - instrument object**			
	mamalu	*to hit*	mamaluhon	*hit with sth*
	mandupdupi	*tp pour into*	mandupduppon	*pour sth*
	mamodil	*to shoot at sth*	mamodilhon	*shoot sth (eg bullet, gun)*
(D)	**applicative function - concomitant object**			
	makkabangi	*to fly over sth*	makkabakkon	*fly away with sth*
	manortor	*to dance*	manortorhon	*dance with sth*

Table 4.16 (cont)

(E) applicative function - beneficiary object		
	mangulahon	*work in the fields for s.o.*
	matsarihon	*seek food for s.o.*

(data from Van der Tuuk 1971: 102-105 & 112-113)

Wolio is a Western Malayo-Polynesian language spoken on an island off southeast Sulawesi. Wolio *-aka*, an apparent cognate of **akin[i]*, is an applicative suffix which derives transitive verbs from intransitive ones. With transitive verbs *-aka* also introduces an O argument, either one different from the O argument of the non-derived stem, or a second O argument. With transitive verbs *-aka* may also change the meaning of the stem (Anceaux 1988: 22-23). Table 4.17 gives examples of forms derived with *-aka*. Under (A) are those derived from intransitive verbs. Those derived from transitive verbs where *-aka* allows an O argument of a different semantic role are given under (B) and those where *-aka* allows a second O argument are given under (C). The examples given of *-aka* changing the stem's meaning are under (D). As can be seen from Table 4.17 a common meaning of *-aka* is to allow a beneficiary or an instrument participant to be expressed as O.

Table 4.17: Functions of Wolio *-aka*

(A) *-aka* with intransitive verbs			
unda	*to agree*	unda-aka	*to approve of s.o*
gaugau	*to tell a lie*	gaugau-aka	*to tell a lie to s.o.*
maasi	*to feel compasion*	maasi-aka	*to love s.o.*
potawa	*to laugh*	potawa-aka	*to laugh at s.o./sth*
taqi	*to weep*	taqi-aka	*to bewail sth*
kokariaa	*to hold feast*	kokariaa-aka	*to hold a feast for s.o.*
(B) *-aka* with transitive verbs - adding a different object			
gora	*to exclaim*	gora-aka	*to call to s.o.*
bebe	*to hit*	bebe-aka	*to hit with sth*
baca	*to read, recite*	baca-aka	*to read, recite for s.o.*
dika	*to place*	dika-aka	*to place for s.o.*
tambuni	*to fill up*	tambuni-aka	*to fill up with sth*

Table 4.17 (cont)

(C)	***-aka* with transitive verbs - adding a second object**			
	pasumpu	*to make s.o. drink*	pasumpu-aka	*to make s.o. drink sth*
	tuda	*to throw*	tuda-aka	*to pelt s.o. with sth*
(D)	***-aka* with transitive verbs - changing the meaning**			
	keni	*to carry, take in hands*	keni-aka	*to seize hold of sth*
	taa	*to stretch, put across*	taa-naka	*to catch sth*

(data from Anceaux 1988: 22-24)

As *-aka* has different meanings a verb can actually take the suffix twice combining two of its meanings. For example, the verb *taa* 'to stretch, to put across' changes in meaning by adding *-aka*, becoming *taa-naka* 'to catch'. A second *-aka* suffix can be added to allow an instrument O argument to be expressed, giving *taa-naka-aka* 'to catch with sth'. Another example is the form *tabu-raka-aka* 'to drop for s.o.' with the beneficiary expressed as the O argument by the use of the second *-aka* suffix. The form *tabu-raka* 'to drop' appears to show a causative use of *-aka*, derived from *tabu-ri* 'to fall upon sth' (Anceaux 1988: 23). The suffix *-aka* has a range of functions, but a generalisation is that it denotes an O argument of a different semantic role from that of the other transitive suffix *-i*, though not all verbs can occur with either suffix (Anceaux 1988: 21-22 & 24). However, there are also some stems which are derived with *-aka* from a stem already comprising the *-i* suffix. For example, there is a bound root *bubu-* which occurs in *bubu-aka* 'to cover with sth' and *bubu-ri* 'to strew upon'. The form *bubu-ri-aka* 'to strew with' is derived by adding the *-aka* suffix to the stem already comprising *-i*.

Also in Wolio there is a suffix *-aka* with an intransitive use. It can be attached to numerals or compounds containing numerals deriving an ordinal meaning. Thus *'ise* 'one' becomes *'ise-aka* 'to be first' and *rua-aqu-aka* 'to be the second (thing)' is derived from *rua aqu* 'two (things)' (Anceaux 1988: 24).

Wolio, like many Oceanic languages, has undergone a sound change whereby original final consonants have been lost, but these are retained as thematic consonants before certain suffixes, including the transitivising suffixes *-i* and *-aka*. However, a thematic consonant does not always occur before *-aka*. This is demonstrated by the fact

that a verb may have more than one form with *-aka*, as with the verbs *rambi* 'to strike' and *tau* 'to bring down', the different forms of which are given in Table 4.18. With these verbs one form of the verb with *-aka* has a thematic consonant and the other does not. The other examples in Table 4.18 show that there is sometimes a thematic consonant with the *-i* transitive suffix, but not with *-aka* (Anceaux 1988: 11).

Table 4.18: Thematic consonants in Wolio

(A)	**two forms of *-aka***			
	rambi	*to strike*	rambi-taka	*to make a beating movement with sth*
			rambi-aka	*to hit with sth*
	tau	*to bring down*	tau-raka	*to put sth down*
			tau-aka	*to bring down for s.o.*
(B)	**thematic consonant with *-i* but not *-aka***			
	aba	*to ask*	aba-ki	*to ask s.o.*
			aba-aka	*to inquire after sth*
	taqi	*to weep*	taqi-si	*to cry over s.o.*
			taqi-aka	*to bewail sth*

(data from Anceaux 1988: 23-24)

Tukang Besi is another Western Malayo-Polynesian language spoken on islands off southeast Sulawesi. It has two cognates of Proto Oceanic **akin[i]*; an applicative suffix *-ako* and a free form *ako* which can behave as both a verb and a preposition. The suffix *-ako* is one of three applicative suffixes in Tukang Besi and the one with the widest range of meanings. *-Ako* can be attached to intransitive or transitive verbs allowing participants with the semantic roles of beneficiary (111), instrument (112) and purpose (113) to be expressed as the O argument. With transitive verbs *-ako* introduces an O argument with the role of theme, as in (114), and with stative intransitive verbs *-ako* allows an inanimate cause participant to be expressed as O, as in (115) (Donohue 1995: 221-236, pers.comm.).

111) no-ala-**ako** te ina-su te kau
3R-fetch-APP CORE mother-1sg.POSS CORE wood
She fetched the wood as a favour for my mother.
(Donohue 1995: 228)

112) no-tu'o-**ako** te baliu te kau
3R-chop-APP CORE axe CORE tree
He chopped the tree with an axe.
(Donohue 1995: 232)

113) ku-wila-**ako** te kawi-'a u kene-su
1sg-go-APP CORE marry-NL GEN friend-1sg.POSS
I went for the wedding of my friend.
(Donohue 1995: 236)

114) no-hu'u-**ako** te boku te ana
3R-give-APP CORE book CORE child
He gave the child a book.
(Donohue 1995: 233)

115) no-mate-**ako** te buti
3R-die-APP CORE fall
He died in a fall.
(Donohue 1995: 235)

As a free form, Donohue (1995: 328-330) suggests that *ako* is best described as an atypical verb. When occurring as a verb *ako* has the meaning of 'do for' and behaves like verbs in that it takes subject prefixes when used as predicate, as in (116), and subject relative clause morphology when used to modify a noun phrase. *Ako* also has a prepositional function whereby it occurs without subject prefixes in a serial verb construction and is not contiguous to the verb, as in (117), and it can modify a noun phrase without being marked with relative clause morphology (Donohue 1995: 329).

116) mbea-do 'u-**ako**-naku wa
not-yet 2sg.R-**do.for**-1sg.DAT.OBJ ILL.FORCE
Haven't you done it for me yet?
(Donohue 1995: 329)

117) mbea-do 'u-sai-'e **ako**-aku wa
not-yet 2sg.R-make-3OBJ BEN-1sg.DAT.OBJ ILL.FORCE
Haven't you made it for me yet?

(Donohue 1995: 329)

Donohue (1995: 238 & 330) states that *ako* is most verb-like with a benefactive or purposive meaning, and as a main verb its meaning is always a benefactive one, 'do for'. In fact Donohue (1995: 238) writes that the interpretation of *ako* as an applicative suffix, rather than an independent verb when it introduces a benefactive argument, is largely an arbitrary one. He suggests that the instrument and cause functions of *-ako* have been added more recently, and that its wide range of functions suggests that *-ako* has undergone a longer period of grammaticalisation than the other applicative suffixes which are more restricted in function (Donohue 1995: 238). Tukang Besi is the only language I have found so far which has a cognate of **akin[i]* that is a verb, and is thus crucial to any hypotheses put forward about the history of this form.

Muna, a third Western Malayo-Polynesian language spoken on islands off southeast Sulawesi, has a cognate form with a rather different function. The suffix *-Cao*, where *C* represents a thematic consonant, adds an intensive meaning to a verb, often denoting violent and vehement action (van den Berg 1989: 291). Derived forms with *-Cao* are mostly transitive, but sometimes intransitive. This suffix is not a productive morpheme and there seems to be a certain amount of idiolectal meaning variation, as some verbs are recorded with different meanings which are not confirmed with other speakers (van den Berg 1989: 291). Table 4.19 gives examples of forms derived with *-Cao*. Many of the forms clearly have an intensifying meaning, however, with some this meaning is not so clear. With some stems *-Cao* seems to change the meaning, and with one stem, *horo* 'fly', *-Cao* seems to have the function found with cognate forms in other languages and introduces a concomitant participant as the O argument, thus *horo-pao* 'fly off with sth'.

Table 4.19: *-Cao* derivations in Muna

(A) stems and their derived *-Cao* forms			
pande	*know, clever*	-pande-hao	*know*
ndole	*lie down (state)*	-ndole-hao	*lie down (action)*
limpu	*forget*	-limpu-hao	*forget all about*
ghondo	*look (at)*	-ghondo-fao	*take care of*
longko	*lie face down, stoop*	-longko-fao	*fall, lie face down*
ghati	*hold (under arm)*	-ghati-fao	*hold tightly (under arm), squeeze, push*
tumbu	*pound, hit*	-tumbu-lao	*plant (firmly) in the ground; hit firmly*
wangku	*hit, strike*	-wangku-lao	*throw/strike vigorously; collide with*
dhudhu	*push*	-dhudhu-lao	*push forcefully (in one big push)*
rambi	*hit, strike*	-rambi-tao	*fling down*
angka	*appoint*	-angka-tao	*respect, be sensitive*
ule	*turn, shake the head*	ule-tao	*spin/turn around vehemently*
kitu	*wipe*	-kitu-rao	*wipe intensively*
koki	*rub*	-koki-rao	*turn/push away s.o.'s face*
puru	*take off leaves*	-puru-sao	*let go (rope); take leaves off randomly*
horo	*fly*	-horo-pao	*fly off with*

(data from van den Berg 1989: 291-292)

Buru is a Central Malayo-Polynesian language spoken on Buru Island in the Maluku Province of Indonesia. Buru has a verbal enclitic *-k* which may be cognate with Proto Oceanic **akin[i]*. This enclitic has a variety of functions some of which are reminiscent of those of other cognate forms. For example, with intransitive verbs *-k* has a valency-increasing function. With non-active verbs which take only a patient participant, *-k* has a causative function, adding an agent participant to the clause. For example, in (118) the verb *mangi* 'dry' occurs intransitively with a patient participant expressed as the

S argument. In (119) *-k* has been attached to the verb and an agent participant is expressed as A and the patient participant is expressed as O.

118) [toho-n]$_S$ mangi
descend-GEN dry
The trail is getting dry.

(Grimes 1991: 111)

119) [du]$_A$ mangi-**k** [tonal isi-n]$_O$
3p dry-**k** marsupial meat-GEN
They're drying cuscus meat.

(Grimes 1991: 111)

With active intransitive verbs *-k* has an applicative function, adding an O argument to the clause. In (120) the intransitive form of the verb *mali* 'to laugh' is used, and the S argument expresses an agent participant. In (121) this verb occurs with *-k* and the agent participant is expressed as A and a patient participant is introduced as O.

120) [du]$_S$ mali
3p laugh
They're laughing.

(Grimes 1991: 112)

121) [du]$_A$ mali-**k** [Ben]$_O$ tu da paha tuba
3p laugh-**k** B. CONJ 3s hit drum
They're laughing at Ben, because he's beating the drum.

(Grimes 1991: 112)

With transitive verbs *-k* can be added to allow an O argument of a different semantic role from that normally occurring. Thus in (122) the verb *sai* 'paddle' takes a theme as O, that is the thing paddled, *waga* 'canoe'. In (123) the verb *sai* 'paddle' occurs with the enclitic *-k* and the O argument is the beneficiary, *kami* 'us' (Grimes 1991: 109).

122) ana-rua dii du sai waga dii
offspring-two DIST 3p paddle boat DIST
Those two kids, they're paddling that canoe.

(Grimes 1991: 109)

123) geba-ro telo sai-**k** kami gam pao Leksula
person-PL three paddle-**k** 1pEXC ALL down L.
Three men paddled us down the coast to Leksula.

(Grimes 1991: 109)

However, more commonly with active transitive verbs *-k* has an aspectual function giving the clause an unambiguous accomplishment interpretation, whereas a clause without *-k* has both activity and accomplishment interpretations (Grimes 1991: 109-110). This is demonstrated by (124) and (125). In (124) the verb *taha* 'to fell' occurs unaffixed and the clause has either the activity interpretation 'he is felling the tree', or the accomplishment interpretation 'he felled the tree'. In (125) the verb takes the enclitic *-k* and the clause has the accomplishment interpretation only.

124) da taha kau
3s fell tree
He is felling the tree. / He felled the tree.

(Grimes 1991: 110)

125) da taha-**k** kau
3s fell-**k** tree
He felled the tree.

(Grimes 1991: 110)

This suffix can also be attached to the final element of a locative prepositional phrase with a similar function. In (127) the prepositional phrase *gam pao* 'down there' has the enclitic *-k* attached to it. Grimes (1991: 173) considers this to be morphological incorporation of the oblique locative phrase and seems to indicate that the whole predicate, that is the verb and the locative argument, acts like an accomplishment verb. Example (126) shows this clause without the *-k* enclitic. In this function *-k* occurs only when the verb is a motion verb or the allative preposition *gam* is used.

126) da toho gam pao
3s descend ALL down
He went down there.

(Grimes 1991: 173)

127) da toho gam pau-**k**
3s descend ALL down-**k**
He went down there (and arrived).

(Grimes 1991: 173)

The enclitic *-k* can also be used to mark incorporation of post-verbal arguments. In this function, demonstrated by (129) in contrast to (128), *-k* is attached to the post-verbal argument indicating that this argument is part of the verb complex. The incorporated argument is generic and the verb and argument complex behaves like an intransitive predicate (Grimes 1991: 230).

128) da loa nofi-t
3s do bellows-NOM
He's working the bellows.

(Grimes 1991: 230)

129) da loa nofi-**k**
3s do bellows-**k**
He's bellows-working. / He's a bellows-worker.

(Grimes 1991: 230)

Taba, a language of the South Halmahera-West New Guinea subgroup spoken on Makian island to the west of Halmahera, has an applicative suffix *-Vk* which has a variety of functions. Intransitive verbs in Taba are divided into Actor and Undergoer intransitives determined by the type of argument they take. With Undergoer intransitives *-Vk* derives a 'bivalent intransitive' whereby the two Undergoer arguments can be described as being mixed in some way. This use of *-Vk* occurs most commonly with verbs denoting cooking processes (Bowden 1997: 234-235), as shown in (130). With Actor intransitive verbs *-Vk* derives a transitive verb by adding an extra participant as O. The most common role of the introduced O argument is patient, as in (131). However, *-Vk* can also license a theme, as in (132), a concomitant role with motion verbs, as in (133), and a stimulus role with verbs of emotion, as in (134) (Bowden 1997: 236-237, n.d.).

130) loka posa-**k** niwi
banana be.boiled-APP coconut
The banana is boiled in coconut.

(Bowden 1997: 235)

131) male m=ha-i-so-**ak** i hu
must 2sg=CAUS-CL-one[marry]-APP 3sg CONT
You still have to marry her.

(Bowden 1997: 237)

132) l=poas-**ak** wog ni poto te
3pl=row-APP canoe COMP rear.end NEG
They rowed canoes without any sterns.

(Bowden n.d.)

133) Bib n=sung-**ak** Nou
B. 3sg=enter-APP N.
Bib took Nou inside (i.e. Bib went inside too).

(Bowden 1997: 237)

134) wang=si l=kiu-**ak** barat=si
child=PL 3pl=be.scared-APP westerner=PL
The childern are scared of westerners.

(Bowden n.d.)

With transitive verbs *-Vk* derives ditransitive verbs adding a second Undergoer argument. Again *-Vk* licenses O arguments with a range of semantic roles, including instrument, manner, companion, theme and recipient. The most commonly added role with transitive verbs is an instrument (Bowden 1997: 238-239, n.d.).

With Actor intransitive verbs and transitive verbs the participant expressed as the O argument licensed by *-Vk* can also be expressed as the object of a preposition with the predicate without *-Vk*. For example, in (135) the verb *goras* 'shave, take seeds out' is used without the applicative suffix and the instrument participant, *kobit* 'knife', is expressed as the object of a preposition, whereas in (136) the verb has the applicative suffix and the instrument participant is expressed as a second O argument. With verbs of excretion *-Vk* allows an extra argument which expresses a product participant (Bowden 1997: 242), as in (137).

135) n=goras kapaya ada kobit
3sg=shave pawpaw with knife
He took the seeds out of the pawpaw with a knife.

(Bowden n.d.)

136) n=goras-**ak** kapaya kobit
3sg=shave-APP pawpaw knife
He took the seeds out of the pawpaw with a knife.

(Bowden n.d.)

137) yak k=sio-**ak** yak halua
1sg 1sg=defecate-APP 1sg halua
I'm excreting halua (toffee made from palm sugar).

(Bowden 1997: 242)

Taba *-Vk* also has an apparently non-applicative function whereby it signals a more intensive meaning than the underived form (Bowden 1997: 241), as shown by (138) and (139). The use of *-Vk* with the verb *idis* 'spit' indicates that the action was carried out with a great deal of noise. Bowden (1997: 242) suggests that perhaps the applicative suffix with this verb once allowed a companion O argument, the noise, to be expressed overtly, but that this O argument is no longer expressed.

138) k=ha-idis
1sg=CAUS-spit
I spit (making no noise).

(Bowden 1997: 241)

139) k=ha-idis-k
1sg=CAUS-spit-APP
I spit (making a lot of noise)

(Bowden 1997: 241)

4.7 SUMMARY

This chapter has dealt mainly with the modern reflexes and cognates of Proto Oceanic **akin[i]*. Several times questions about the reconstruction of this form and its function or functions have been alluded to. The following chapter makes an attempt to deal with these questions along with others and to provide a detailed description of Proto Oceanic **akin[i]*.

5 *reconstructing *akin[i]*

5.1 INTRODUCTION

Cognate forms found in many Oceanic languages suggest quite clearly the reconstruction of several seemingly related forms, including **aki*, **akini* and **kini*. The previous chapter described the synchronic status and function of apparent reflexes of such forms in modern Oceanic languages and apparent cognates in non-Oceanic languages. This chapter is concerned with **akin[i]* in Proto Oceanic. By reviewing the work on **akin[i]* done by Pawley (1973) and Harrison (1982), and then re-examining some of the issues concerning the form, this chapter attempts to present a detailed description of Proto Oceanic **akin[i]*. The issues considered in the chapter include:

(i) whether **akin[i]* was a single morpheme or comprised more than one morpheme (section 5.4);
(ii) which function or functions are reconstructable for the Proto Oceanic form or forms (section 5.5);
(iii) the degree of phonological independence of **akin[i]* (section 5.6); and
(iv) the number of related forms which were present in Proto Oceanic (section 5.7).

5.2 PROPOSALS ABOUT PROTO OCEANIC **AKIN[I]*

The two major studies on Proto Oceanic **akin[i]* which formed the basis of the present study are Pawley (1973) and Harrison (1982). Pawley (1973) is a broad study of Proto Oceanic grammar which includes a section on **akin[i]* and its place within the verbal system. Harrison (1982) is a response to Pawley (1973), which looks in more detail at some of the modern Oceanic reflexes and proposes a somewhat different analysis of the form. This section summarises both these studies. The other work described here is Clark (1973). He looks briefly at **akin[i]* and provides an historical explanation for

variations between the two Proto Central/Eastern Oceanic forms *-*Caki* and *-*Cakini*, which forms part of the present analysis of **akin[i]*.

5.2.1 PAWLEY 1973

Pawley (1973) reconstructs **akin[i]* as a transitive suffix which contrasted with the other transitive suffix*-*i* in terms of the semantic role of the O argument. The semantic roles of O arguments associated with **akin[i]* were cause, concomitant, instrument and beneficiary, whereas those which occurred with *-*i* were goal, stimulus and patient. Pawley (1973: 125-128) proposes that the semantic role of the O argument of a verb with **akin[i]* was largely predictable on the basis of the meaning of the verb. Following a study by Wilson (n.d.), Pawley (1973) posits four semantic classes of verbs with differing semantic roles of the O argument indicated by **akin[i]*. Table 5.1 shows the different types of participants denoted by the O argument with verbs that took *-*i* and **akin[i]*.

Table 5.1: Semantic roles associated with **-i* and **akin[i]* after Pawley (1973)

Semantic class	definition and example meanings	O argument with **-i*	O argument with **-aki(ni)*
Statives	Verbs that take an argument which experiences or is in the state denoted by the verb *good, happy, soft, red*	–	–
Intradirectives	Verbs with which the subject argument both causes and experiences the action *jump, go, walk, stand, fly, lie down, sleep, stretch (oneself)*	place / goal	concomitant / cause
Spontaneous transitives	Verbs denoting involuntary processes or actions *love, cry, see, know, admire, laugh at, tire of, be angry at*	goal / stimulus	cause
Deliberate transitives	Verbs denoting actions done on purpose and where the agent is not the same as the experiencer or the patient *eat, drink, read, catch, cut, kick*	experiencer / patient, goal or product	cause, instrument or beneficiary

Sentences (3), (5) and (8) show examples of each type of verb used with a reflex of **akin[i]*. Sentences (1), (2) and (3) from Longgu (SES) demonstrate the use of the intradirective verb *ango* 'crawl'. In (1) *ango* 'crawl' is used intransitively. In (2) it is used transitively with the the suffix *-vi*, the vowel of which reflects Proto Oceanic **-i*, and the O argument has the role of goal. In (3) *ango* 'crawl' occurs with the suffix *-ta'ini*, the reflex of **akin[i]*, and takes an O argument with the role of concomitant. Examples (4) and (5) are from Boumaa Fijian and show the two different transitive forms of the spontaneous transitive verb *pu'u* 'be angry'. In (4) *pu'u* 'be angry' is used with the transitive suffix *-ca*[1], and the role of the O argument is stimulus, that is the person at

[1] Boumaa Fijian *-ca*, and other allomorphs of the transitive suffix *-Ca*, comprise a thematic consonant and a reflex of the Proto Oceanic 3sg object enclitic **=a*, a contraction of what was once **-Ci-a*, a reflex of the transitive suffix **-i* with a thematic consonant and the 3sg object enclitic.

whom the feeling is directed. In (5) *pu'u* 'be angry' occurs with a reflex of **akin[i]*, the transitive suffix *-ca'ina*. The O argument in this case has the role of cause, or the reason for the feeling. Examples (6), (7) and (8) are also from Boumaa Fijian and demonstrate the intransitive and two transitive forms of the deliberate transitive verb *'olo* 'throw'. Sentence (6) shows this verb used intransitively. In (7) *'olo* 'throw' occurs with the short transitive suffix *-va*, and the O argument has the role of patient or goal, that is the thing at which something is thrown. In (8) *'olo* 'throw' is used with the transitive suffix *-ta'ina*, a reflex of **akin[i]*, and the role of the O argument is instrument, or the implement thrown. Pawley's (1973) reconstruction of Proto Oceanic **akin[i]* as a suffix is apparently based on the fact that modern reflexes are suffixes and that its reflexes often contain thematic consonants. Thematic consonants are ones which occur between a stem and a following suffix. Many such consonants reflect original Proto Oceanic final consonants which have been lost word-finally, but retained before a suffix. Thus the presence of thematic consonants before reflexes of **akin[i]* suggests that **akin[i]* was a suffix before such stem-final consonants were lost.

1) [mwaa-i]$_S$ e ango
snake-SG 3sg crawl
The snake is crawling.

(Hill 1992: 58)

2) [mwaa-i]$_A$ e ango-vi-a [vanga ngaia]$_O$
snake-SG 3sg crawl-TR-3sg food 3sg
The snake crawled to/for its food.

(Hill 1992: 60)

3) [mwaa]$_A$ e ango-**ta'ini**-ra [gale ngaia-gi]$_O$
snake 3sg crawl-TR-3pl child 3sg-PL
The snake crawled with its babies (on its back).

(Hill 1992: 60)

4) [au]$_A$ pu'u-ca [a gone yai]$_O$
1sg angry-TR ART child DEM
I am angry with this child.

(Dixon 1988: 218; gloss mine)

5) au pu'u-**ca'ina** a o-na i-tovo
1sg angry-**TR** ART CL-3sg habits
I am angry about his habits (i.e. about the way he behaves)

(Dixon 1988: 218; gloss mine)

6) [au]$_S$ aa 'olo
1sg past throw
I threw (something at something).

(Dixon 1988: 217; gloss mine)

7) [au]$_A$ aa 'olo-va [e dua a toa]$_O$ (i+na dua a vatu)
1sg PAST throw-TR 3sg one ART fowl (PREP+3sg one ART stone)
I threw at the fowl (with a stick).

(Dixon 1988: 217; gloss mine)

8) [au]$_A$ aa 'olo-**ta'ina** [e dua a vatu]$_O$ (i+na toa)
1sg PAST throw-**TR** 3sg one ART stone (PREP+3sg fowl)
I threw a stone (towards the fowl).

(Dixon 1988: 217; gloss mine)

Pawley (1973: 120) reconstructs Proto Oceanic **akini* as the alternant before pronominal object suffixes and **aki* elsewhere. This distribution is still present with reflexes of **akin[i]* in a number of modern Oceanic languages, including Wayan Fijian. Examples (9) and (10), from Wayan, both have the verb *teitakū* 'to follow' used with the transitivising suffix *-Caki(ni)*. In (9) where the O argument is cross-referenced on the verb with the 3sg object suffix *-a*, the form of the transitive suffix is *-takini-*. In (10) where the O argument is expressed solely as a noun phrase, the transitive suffix has the form *-taki*.

9) qi na teitakū-takini-a na aqona
1sg FUT follow-TR-3sg CN kava
I'll follow later with the kava.

(Pawley & Sayaba n.d.; gloss mine)

10) qi na teitakū-taki na aqona
1sg FUT follow-TR CN kava
I'll follow later with the kava.

(Pawley & Sayaba n.d.; gloss mine)

Pawley (1973: 142-147) also reconstructs a verbal preposition **kini-* with the meaning of 'by, with (instrument)'. He states that although **kini-* is clearly connected to **akin[i]*, it has long been a separate particle or verbal preposition. Example (11), from Tamambo (SO) shows a modern reflex of **kini-*. Tamambo *hina*, apparently reflecting the coalescence of the preposition **kini-* and the common article **na*, is a preposition

which is used to introduce oblique arguments with a number of semantic roles, including instrument (Jauncey 1997: 265-268).

11) tambaluhi-na mo turu horo-a **hina** vuhai ...
wife-P:3sg 3sg stand block-O:3sg **PREP** stick
... his wife blocked him with the stick ...

(Jauncey 1997: 266)

5.2.2 HARRISON 1982

Harrison (1982) proposes a similar, but somewhat different, analysis of Proto Oceanic **akin[i]* from that of Pawley (1973). He states that Pawley's (1973) analysis does not account for: (a) certain uses and restrictions of the modern reflexes of **akin[i]*; and (b) strong evidence, particularly from Micronesian languages, that **akin[i]* was a free form which has become a suffix quite recently in some languages and functions. The major differences between these two proposals are that: (i) Pawley (1973) reconstructs a suffix **-akin[i]* and a verbal preposition **kini-*, whereas Harrison (1982) reconstructs a single free form **akin[i]*; and (ii) Pawley (1973) reconstructs **akin[i]* as a marker of accessory-type roles, which allowed a concomitant, cause, instrument or beneficiary to be expressed as the O argument. The verbal preposition **kini-* took an object with the role of instrument. Harrison (1982) reconstructs some of the same functions for Proto Oceanic **akin[i]*, but proposes that **akin[i]* also had a causative function which reflected its pre-Proto Oceanic use as a lexical verb occurring as the second (and final) verb in a serial verb construction that was a periphrastic causative.

Harrison (1982: 193) reconstructs a single free form **akin[i]*, suggesting this to be more plausible than the reconstruction of two forms, one bound and one free, which were similar in both form and function. He proposes that **akin[i]* developed into a suffix after the break-up of Proto Oceanic. The evidence against the reconstruction of an original suffixed form involves thematic consonants. In Micronesian languages there are suffixed reflexes of **akin[i]* before which thematic consonants do not occur, suggesting that **akin[i]* became a suffix subsequent to the change of final-consonant deletion. The examples given in Table 5.2 show verbs taking reflexes of **akin[i]* without any intervening thematic consonant[2].

[2] In Micronesian languages it is difficult to find verbs which have both a transitive form with a thematic consonant and a form with **akin[i]* without a thematic consonant, which would provide better evidence of the lack of thematic consonants before **akin[i]* reflexes. In Mokilese and Woleaian the verbs which take

Table 5.2: Suffix reflexes of **akin[i]* reflexes without thematic consonants in Micronesian languages

Kiribatese (Gilbertese)			
ngare	*laugh*	ngare-akina	*laugh at sth*
bobai	*trade, to buy, to sell*	bobai-akina	*deal in, keep a store of sth*
ie	*sail*	ie-akina	*sail towards/for sth*
no	*see, to look at a spectacle*	no-akina	*look, admire sth*
vene	*lie, be lying down*	vene-akina	*stay in bed because of sickness*
Mokilese			
koakoahk	*tired*	koakoahk-ki	*tired because of sth*
du	*dive*	duh-ki	*dive for sth*
noas	*sell, do business*	noas-ki	*buy sth*
Woleaian			
mmwutą	*vomit*	mmwuta-agili	*vomit sth up*
gabetą	*yell, shout*	gabeta-agili	*shout at, yell for s.o.*

(data from Sabatier 1971, Sohn & Tawerilmang 1976 and Harrison 1977)

Furthermore, Harrison (1982: 185) states that at a post-Proto Micronesian stage most Micronesian languages have undergone a change of final vowel deletion and that the final vowels, while preserved before other suffixes, are not preserved before reflexes of **akin[i]*. For example, in the forms from Mokilese and Kosraean given below, the transitive form of the verb contains an extra syllable not found in the intransitive form or in the form which takes the reflex of **akin[i]* (Harrison 1982: 185).

-ki and *-agili* respectively, often do not have another transitive form, or if they do have another transitive form they are not ones which take a thematic consonant. Harrison (1982: 185) gives one Kiribatese example of a verb with a thematic consonant in the transitive form and not in the form with *-akina*. The form *tebotebo* 'to dive, to bathe', has a transitive form *teboka* 'to pour water on something', with a thematic consonant, but the form with *-akina* is *teboakina* 'to be insistent on something' without the thematic consonant. However, a search of the Kiribatese dictionary (Sabatier 1971) did not reveal any other like cases. A brief survey of Micronesian reflexes of verb stems reconstructable as consonant-final forms in Proto Oceanic also did not reveal forms with reflexes of **akin[i]* without a thematic consonant where one would be expected.

Mokilese	poal-oa	*to chop sth*
	poaɬ-poal	*to chop*
	poal-poal-**ki**	*to chop with sth*
Kosraean	sihm-ihs	*to write sth*
	sihm	*to write*
	sihm-**kihn**	*to write with sth*

With these forms it is fairly clear that the **akin[i]* reflexes became suffixed subsequent to both the loss of final consonants and the loss of final vowels.

However, there are reflexes of **aki* (without the **ni*) in Micronesian languages before which thematic consonants do occur. These are the suffixes that derive Undergoer subject verbs. As shown by the examples in Table 5.3, the thematic consonant which occurs with the reflex of **-aki* is often the same as that which occurs with the transitive form of the verb. The 'plain' intransitive forms are often reduplicated.

Table 5.3: Thematic consonants before **aki* reflexes in Micronesian languages

intransitive	transitive	**aki* intransitive	*gloss*
Woleaian			
beli-beli	beli-**ng**-ii	beli-**ng**-agi	*to snap off*
bugo-bugo	bugo-**s**-ii	bugo-**t**-agi	*to tie, connect*[3]
mwulo-mwulo	mwulo-**t**-ii	mwulo-**t**-agi	*crumple, wrinkle*
iuye-iuye	iuye-**l**-ii	iuye-**l**-agi	*collect, gather together*
toa-toa	toa-**f**-ii	toa-**f**-agi	*massage, rub*

[3] With the forms *bugo-t-agi* 'to be tied' and *bugo-s-ii* 'to tie something' the different thematic consonants reflect a single Proto Oceanic phoneme. Proto Oceanic **t* is generally reflected in Woleaian as *t* before *a* and as *s* elsewhere (Jackson 1986: 203). The thematic consonants of *mwulo-t-agi* 'to be crumpled' and *mwulo-t-ii* 'to crumple something' reflect Proto Oceanic **s* or **j*, both of which are reflected in Woleaian as *t* (Jackson 1986: 203).

Table 5.3

intransitive	transitive	**aki* intransitive	*gloss*
Mokilese			
joai-joai	jai-**m**	jai-**m**-ek	*to sharpen*
kid-kid	kidi-**m**	kidi-**m**-ek	*to wrap*
mwei	mwei-**d**	mwei-**d**-ek	*snapped, divorced*
ok	oko-**j**	oko-**j**-ek	*to burn*
rep	repi-**ng**	repi-**ng**-ek	*to break*
wei-wei	wei-**j**	wei-**j**-ek	*'to pull'*
Ponapean			
wengi-weng	wengi-**d**	wengi-**d**-ek	*to wring*
tei	teh-**r**	tei-**r**-ek	*to tear, be torn*
Pingilapese			
pwal	pwæla-**ng**	pwæla-**ng**-æk	*to split*
Carolinian			
wogho-wogh	weghe-**t**-i	woghe-**t**-ágh	*to turn*
suusu	suu-**gh**-i	suu-**gh**-ágh	*to open, be opened*

(Harrison 1976: 160, Harrison 1977, Rehg 1981: 207, Rehg & Sohl 1979, Good & Welley 1989, Jackson & Marck 1991)

These data, where thematic consonants are retained before reflexes of **aki* in Micronesian languages, suggest that **aki* was a suffix prior to the loss of Proto Oceanic word-final consonants.

The fact that in Micronesian languages some reflexes of **akin[i]* are reflected with thematic consonants and others are not led Harrison (1982) to propose that **akin[i]* became suffixed at different times in different functions. As thematic consonants occur with **akin[i]* reflexes in some groups of languages, such as Fijian and Polynesian ones and not others, such as Micronesian ones, Harrison also suggests that **akin[i]* became a suffix in different subgroups at different times. However, as he (1982: 218) admits the history of the thematic consonants and their reflexes in association with Proto Oceanic **akin[i]* is still problematic. Harrison (1982: 216-218) suggests three possible historical scenarios:

(i) That **akin[i]* was originally a suffix. This is problematic because of the Micronesian data presented above.

(ii) That the thematic consonants in Fijian and Polynesian occurring before **akin[i]* reflexes do not actually reflect Proto Oceanic final consonants (Harrison 1982: 216-218). A degree of support for this proposal comes from Bauan (Standard) Fijian where many of the thematic consonants are not in fact historical. Harrison (1982: 217) suggests two possible origins of the thematic consonants with **akin[i]* reflexes: (a) those that appear to reflect original final consonants have developed through analogy with the thematic consonants with reflexes of the transitive suffix **-i*; and (b) if **akin[i]* were a verb then the thematic consonants may reflect relics of some prefixal verbal morphology.
(iii) That the change of final consonant deletion occurred independently at different times in different subgroups; before the suffixation of **akin[i]* in languages like the Micronesian ones where it is not reflected with thematic consonants, and after the suffixation of **akin[i]* in languages like the Fijian and Polynesian ones where it is reflected with thematic consonants.

Harrison (1982: 179-180) states that certain functions of modern reflexes of **akin[i]* are not reconcilable with the reconstruction of it as an accessory-role marker. These functions include:

a) an 'agentless' passive suffix in Micronesian languages, demonstrated by Woleaian *-ag* in (13), as compared with the non-passive verb form in (12);

12) ye fisi-g-i baabiyor we yaa-l
3sg burn-THC-TR paper DEM POSS.CL-3sg
He burned the paper.

(Sohn 1975: 245; gloss mine)

13) ye fisi-ng-**eg** baabiyor we yaa-l
3sg burn-THC-PASS paper DEM POSS.CL-3sg
His paper was burnt.

(Sohn 1975: 245; gloss mine)

b) a suffix on reciprocal verbs in Polynesian languages, as demonstrated by (14) from Samoan, which shows the reciprocal form of the verb *finau* 'argue, quarrel';

14) 'ua mā fe-finau-**a'i** i ai
ASP 1pl.EXC REC-argue-AKI PREP ADV
We argued about it.

(Harrison 1982: 180)

c) a causative suffix, demonstrated by North-East Ambae (SO) *-tagi(ni)* in (16) where it derives a causative form of the verb *saka* 'to go on top of', which is used in its underived form in (15);

15) ale ra=ru mo toga mo vano vano mata-ni-aho mo hage
so 3NSGS=DL RL sit RL go go eye-CONST-sun RL go.up
huri mo saka lo vusi.
PURP RL go.down LOC hill
So the two of them stayed until the sun went up to go down on (set behind) the hill.

(Hyslop 1998: 346)

16) ...ale mo lai na garo ngihie
so RL take ACC rope that
mo saka-**tagini**=e lo vatu ngihie, vine ngihie...
RL go.down-CAUS=3SGO LOC stone that down that
...then he took the rope and put it down on top of the stone...

(Hyslop 1998: 346)

d) a distributive/dispersive suffix in conjunction with reflexes of the reciprocal prefix **paRi-*, shown by the following forms from Samoan where the sequence *fe-VERB-(C)a'i* gives the meaning 'to and fro' or 'in all directions';

agi	*blow*	fe-agi-a'i	*blow this way and that*
ato	*throw*	fe-ato-a'i	*throw about, fling around*
gāsolo	*run, flow*	fe-gāsolo-a'i	*move to and fro*
sulu	*flee*	fe-sūlu-a'i	*flee from place to place*

(Mosel & Hovdhaugen 1992: 183)

e) in de-nominal transitive verb derivation, as shown by the following list of nouns and their verbal derivatives from Tongan (Pn) and Mokilese (Mic);

Tongan			
'otua	*God*	'otua-'aki	*to regard as God*
tamai	*father*	tamai-'aki	*to have s.o. as a male relative*
Mokilese			
warah	*his vehicle*	waran-ki	*to use sth as a vehicle*
jamah	*his father*	jaman-ki	*to regard s.o. as a father*

(Harrison 1982: 180)

f) in de-stative transitive derivation, as with the following forms from Mokilese; and

ling	*pretty*	ling-ki	*to regard sth as pretty*
mwehu	*good*	mwehu-ki	*to like sth*

(Harrison 1982: 180)

g) alternating with the 'close' transitive suffix, with no contrast in the role of the O argument, as demonstrated by the following verbs from Kiribatese (Mic) and Bauan Fijian.

Kiribatese			
bwaroa	*to spill on sth*	bwaro-akina	*to spill on sth*
Bauan Fijian			
ilo-va	*to look at (reflection)*	ilo-vaka	*to look intently at (reflection)*

(Harrison 1982: 180)

For these reasons Harrison (1982) proposes a somewhat different history of **akin[i]*. Table 5.4 shows the stages of development of **akin[i]* proposed by Harrison (1982). The following paragraphs give modern examples that reflect each stage, in an attempt to clarify the schematisation of the functions given in Table 5.4.

Table 5.4: Development of **akin[i]* after Harrison (1982)

		physical intradirectives	psychological intradirectives
pre-POC	stage I	S_X V A_Z V akini O_X	S_X V A_Z V akini O_X
	stage II	S_X V A_Z V akini O_X	S_X V **A_X V akini O_Z**
POc	stage III	S_X V (A_Z V akini O_X) **A_X V akini O_Y**	S_X V A_X V akini O_Z

The types of verbs with which **akin[i]* occurred were intradirective verbs. Intradirective verbs are those denoting states or events which arise or are maintained within the entity that is undergoing the state or event. Thus motion and stance verbs and inherently reciprocal verbs are cardinal intradirectives with which the entity involved in the situation is both the controller and the experiencer. Harrison (1982: 191-192) extends this characterisation to verbs denoting perception, cognition and psychological states where the experiencer participant is the one maintaining the state or event, although an external stimulus is involved. In Kiribatese the transitive suffix *-akina* occurs with the following types of verbs:

> a) motion verbs (eg. *borau* 'to navigate', *nakonako* 'to walk')
> b) stance verbs (eg. *tei* 'to stand', *wene* 'to lie')
> c) perception verbs (eg. *noo* 'to see', *ongoraa* 'to listen')
> d) cognition and other psychological state verbs (eg. *botu* 'to be bored')
> e) 'life force' verbs (eg. *maiu* 'to live', *mate* 'to die')
> f) communication verbs (eg. *me* 'to shout', *wiinrang* 'to boast')
> g) 'executive' verbs (eg. *tabe* 'to be busy', *aua* 'to dawdle')
> h) verbs of inherent reciprocity (eg. *uaia* 'to compete', *mwaio* 'to meet')
>
> (Harrison 1982: 191)

The verb types (a) to (c) and (h) are clearly intradirective verbs. Harrison (1982: 191-192) suggests that intradirective verbs are semantically intransitive and the other types of verbs in Kiribatese can be put into this class on the basis of being semantically intransitive too.

In other modern languages, reflexes of **akin[i]* occur with cardinal intradirective verbs and those denoting perception, cognition and psychological states, all of which are classified as intradirectives by Harrison (1982), motion and stance verbs as physical intradirectives and perception, cognition and psychological state verbs as psychological intradirectives.

At stage I, pre-Proto Oceanic, **akin[i]* was a lexical verb which followed a main verb and formed a periphrastic causative. The S argument of the unmarked form of the verb corresponded with the O argument of the verb complex with **akin[i]*, and a causer participant was introduced as the A argument. Thus languages in which reflexes of **akin[i]* have a causative function, such as Yapese, Manam, Longgu, North-East Ambae and Boumaa Fijian, amongst others (see Chapter 4, section 4.2.1) reflect the original function. Table 5.5 gives examples of forms which have retained this function of **akin[i]* in Kwara'ae (SES), Bauan Fijian and Tongan. It is not entirely clear from Harrison's (1982) description whether he proposes that **akin[i]* had this causative use only with physical intradirectives, or whether it occurred with psychological intradirectives too. From his discussion of the history of Proto Oceanic **akin[i]* this does seem to be the analysis presented, but it is possible that with psychological intradirectives **akin[i]* has always had an applicative use. If this were the case then Table 5.4 would begin at stage II.

Table 5.5: Reflexes of **akin[i]* with causative uses

Kwara'ae			
oli	*to return*	oli-ta'i	*to return sth*
lolomo	*to sink*	lolo-ma'i	*to submerge sth*
aliki	*to be spilt*	liki-ta'i	*to spill sth*
Bauan Fijian			
curu-mi	*to enter (into)*	curu-maki	*to insert sth*
sili-mi	*to dive for*	sili-maki	*to dowse (net)*
dromu-ci	*to sink (into)*	dromu-caki	*to push sth under water*
Tongan			
hū	to enter	hū-maki	*to insert*
hao	*to escape*	hao-faki	*to rescue*
ako	*to learn*	ako-naki-'i	*to instruct*

(data from Harrison 1982: 199-200)

At stage II, also pre-Proto Oceanic, there was a change in the syntactic structure of psychological intradirectives with **akin[i]*. There was the same function of introducing a cause into the clause, but the derivation was of the applicative type, with which the S argument of the verb without **akin[i]* corresponded with the A argument of the verb with **akin[i]*, and the introduced cause was expressed as O. With physical intradirectives **akin[i]* still had a causative function. Harrison (1982: 200-202) suggests that this change may be the result of the nature of the participants with which the different types of intradirective verbs would have occurred. Physical intradirectives were more volitional-type predicates and so any external cause would have been highly agentive, whereas psychological intradirectives were less volitional, and the cause could be interpreted as a stimulus or reason. Originally with both types of verb the cause participant introduced by **akin[i]* was expressed as A. However with psychological intradirectives the constraint of the A argument being associated with the more agentive of the participants led to the experiencer being expressed as A and the cause as O[4]. This meant that with psychological intradirectives **akin[i]* came to be an applicative derivation, rather than a causative one. Harrison (1982: 189-190), following Arms (1974), calls this usage of **akin[i]* the refective function, that is, introducing an O argument with the broad role of stimulus, including cause, source, reason or beneficiary. The verbs in Table 5.6 show examples of the refective function found with reflexes of **akin[i]* in a number of languages.

Table 5.6: Reflexes of **akin[i]* with the refective function

Tawala			
-matouta	*to fear*	-matout-e-	*fear sth/s.o.*
-lowo	*to flee*	-lowo-ge-	*flee sth/s.o.*
-kaoha	*be happy*	-kaoh-e-	*welcome s.o.*
Woleaian			
ker	*to be happy*	ker yagili	*proud of*
Mokilese			
kupwurohla	*to be contrite*	kupwuroh-ki	*sorry about*
Kosraean			
tuhpwek	*be embarrassed*	tuhpwek-kihn	*ashamed of*
pwacr	*be happy, pleased*	pwacr-kihn	*happy with*

[4] With these types of verbs such a switch in the correlation between the grammatical roles and semantic roles is not unusual. Compare Croft's (1991) analysis of verbs taking experiencer and stimulus roles, described in Chapter 2, section 2.3.4, for a possible motivation.

Table 5.6 (cont)

Boumaa Fijian			
pu'u	*be angry*	pu'u-ca'ina	*angry about (sth)*
		sure-va'ina	*invite to*
vala	*to fight*	vala-ta'ina	*fight over/for (sth)*
'aci	*call*	'aci-va'ina	*call (sth)*

(Ezard 1997: 289, Harrison 1982: 190, Dixon 1988: 218)

Stage III in Table 5.4 represents Proto Oceanic. At this stage **akin[i]* had an applicative derivation with both physical and psychological intradirectives, with which the S argument of the verb without **akin[i]* and the A argument of the verb complex with **akin[i]* corresponded and the introduced participant was expressed as O. With at least some physical intradirectives **akin[i]* still retained a causative use, but it now also had the function which Harrison (1982) calls the confective function. That is, introducing an O argument with the role of concomitant. Harrison (1982: 200-207) does not describe in detail how the causative function of **akin[i]* developed into the confective one. The principal difference between these functions is in whether the causer participant accompanies the causee. With the Fijian form *curu-maki* 'to insert something', derived from the form *curu-mi* 'to enter (into)', the causer participant causes the causee to enter something, but does not enter itself. This is the causative usage. With the North-East Ambae form *toa-gi(ni)* 'to run off with something' the causer participant is, in fact, also moving, and is taking taking something else (the participant expressed as O) along with it. This is the confective usage. Harrison (1982: 204) suggests that the change involved:

> "an extension of the scope of the causer. Under a cause semantic [causative use] the causer is actor of the predicate 'cause' only; under an act semantic [applicative use] it becomes actor of the root predicate also."

This change resulted in the causee participant being reinterpreted as a concomitant. With some physical intradirectives it is ambiguous as to which function applies. For example, Manam (NNG) *alale* 'walk' has a form *alale-a2-* 'to help s.o. walk, to walk s.o.'. Syntactically this form has a causative derivation in which the S argument of the intransitive form corresponds to the O argument of the transitive form (Lichtenberk 1983: 230-231), but as Ross (1988: 376) notes it is open to the confective interpretation 'to walk with s.o.' Perhaps it was the ambiguous uses with similar verbs which led to the reanalysis of **akin[i]* with physical intradirectives from the causative use to the

applicative use. Reflexes of **akin[i]* in many modern languages have the confective function, as shown by the forms in Table 5.7.

Table 5.7: Reflexes of **akin[i]* with the confective function

Tawala			
-nae	*to go*	-ni-ye-	*take sth on*
-gae	*to go up*	-gi-ye-	*take sth up*
damana	*to cross a bay/river*	-daman-e	*take sth/s.o. across*
Longgu			
ango	*to crawl*	ango-ta'ini	*to crawl with sth*
lovo	*to fly*	lovo-ta'ini	*to fly with sth*
North-East Ambae			
toa	*to run*	toa-gi(ni)	*to run off with sth*
hivo	*to go down*	hivo-gi(ni)	*to go down with sth*
vano	*to go up*	vano-gi(ni)	*to go with sth*
Bauan Fijian			
lade	*to leap, jump*	lade-vaki	*to jump with sth*
sili	*to bathe*	sili-maki	*to dive with sth*
kara	*to propel canoe w/ pole*	kara-vaki	*to pole sth (eg. canoe)*
viri	*to throw at, pelt*	viri-taki	*to throw sth*

(Ezard 1997: 290, Hill 1992: 60-61, Hyslop 1998: 339-341, Harrison 1982: 189, Capell 1968)

Other functions of **akin[i]* reflexes, Harrison (1982) suggests are post-Proto Oceanic developments. The use of **akin[i]* reflexes to introduce instrument participants is the result of the extension of the applicative use with non-intradirective verbs, such as process-action or affect verbs. Usages of **akin[i]* reflexes as de-nominal and de-adjectival transitive derivations, the dispersive and intensive functions, and use as a productive transitiviser, are also described as developing in consequence of the shift to an applicative derivation (Harrison 1982: 211-213).

Harrison (1982: 201-203) proposes that the detransitivising function of Proto Micronesian **aki* developed from the causative function of **akin[i]*. Proto Micronesian **aki* derived intransitive forms from transitive forms, with which the O of the transitive form corresponded to the S argument of the intransitive form and the participant denoted

by the A argument was not expressed. With Undergoer subject verbs which took a patient participant as the S argument of the unmarked intransitive verb, **aki* derived a suppressed agent interpretation. This can be demonstrated by the Mokilese reflex of **aki*, the suffix *-ek*. In (17) the verb *sipwa* 'break' is used transitively and the O argument is an Undergoer, *rahu* 'branch'. In (18) this verb occurs in its unmarked intransitive form with the patient participant expressed as the S argument of the clause, and the clause has a state or process intepretation. In (19) *sipwa* 'break' occurs intransitively with *-ek*. Again the S argument is a patient, but with this clause the involvement of an agent participant is implied.

17) [ngoah]$_A$ sipwa-ng-la [rahu]$_O$
1sg break-THC-DIR branch-DEM
I broke the branch.

(Harrison 1982: 202; gloss mine)

18) [rahu]$_S$ sipw-la
branch-DEM break-DIR
The branch broke/is broken.

(Harrison 1982: 202; gloss mine)

19) [rahu]$_S$ sipwa-ng-**ek**-la
branch-DEM break-THC-PASS-DIR
The branch was/has been broken.

(Harrison 1982: 202; gloss mine)

With Actor subject verbs **aki* allowed an otherwise ungrammatical construction, that is an intransitive clause where a non-agent participant is expressed as the S argument. The Mokilese examples (20), (21) and (22) demonstrate this function. In (20) the verb *doau* 'to climb' is used transitively with the O argument, *penno* 'that coconut', expressing the goal of the action. This participant cannot occur as the S argument of an unmarked intransitive form of this verb, thus (21) is ungrammatical. However, when *doau* 'to climb' occurs with *-ek*, as in (22), then the goal participant can be expressed as the S argument of an intransitive clause.

20) [ih]$_A$ dau-r-di [penno]$_O$
3sg climb-THC-DIR coconut-DEM
He climbed for the coconut.

(Harrison 1982: 203; gloss mine)

21) **penno doau-di
coconut-DEM climb-DIR

(Harrison 1982: 203; gloss mine)

22) [penno]$_S$ dau-r-**ek**-di
coconut-DEM climb-THC-**PASS**-DIR
That coconut was climbed for.

(Harrison 1982: 203; gloss mine)

Harrison (1982: 202-203) suggests that the detransitivising usage of Proto Micronesian **aki* developed from the causative function of (pre-) Proto Oceanic **akin[i]* in order to allow the suppression of an agent participant without altering the Aktionsart of the clause. Thus **akin[i]* changed from introducing a causer participant to leaving a trace of an implied, but not expressed, causer participant. Harrison (1982) does not describe in detail how this change may have come about.

If pre-Proto Oceanic **akin[i]* was a causativiser, then what was the original function of the Proto Oceanic causative prefix **pa[ka]-*? Harrison (1982: 195-205) notes that reflexes of **pa[ka]-* are interpreted in two different ways: (i) as valency-increasing devices, with which the S and O arguments correspond and a new causer participant is expressed as A; and (ii) to indicate increased actorhood of the already present agent. Examples (23) and (24) from North-East Ambae demonstrate the valency-increasing function of *vaga-*, a reflex of **pa[ka]-*. In (23) the verb *mate* 'to be dead' is used intransitively and the S argument expresses the experiencer participant. In (24) this verb occurs with the causative prefix *vaga-* and the experiencer participant is expressed as O and a causer participant is added as the A argument.

23) mo lehe [ra]$_S$=u mate dolegi.
RL see 3NSGS=TEL dead all
He saw that they were all dead.

(Hyslop 1998: 348)

24) ale [go]$_A$=**vaga**-mate [na avi-gi]$_O$...
so 2SGS=CAUS-die ACC fire-ASS
Then put out the fire...

(Hyslop 1998: 348)

Examples (25) and (26), from Bauan Fijian, demonstrate the increased actorhood usage. In (25) the verb *rogo* 'hear' is used transitively with the transitive suffix *-ca* and the agent

participant, *era* 'they', is expressed as A. In (26) the verb is used with the causative prefix *vaka-* and the valency of the clause is unchanged, as are the type of participants expressed as A and O, however, the A argument has a more volitional and active role within the clause.

25) era ā rogo-ca
3pl TNS hear-TR
They heard it.

(Harrison 1982: 196)

26) era ā **vaka**-rogo-ca
3pl TNS CAUS-hear-TR
They listened to it.

(Harrison 1982: 196)

Harrison (1982: 196) suggests that the adverbial-type function found with some de-adjectival causatives, as in (27), from Bauan Fijian, where the **pa[ka]-* form of the stem *totolo* 'quick' is used, also reflect the increased actorhood usage.

27) e ā cici **vaka**-totolo ko koya
3u TNS run CAUS-quick ART 3sg
He ran quickly.

(Harrison 1982: 196)

In some languages and with some verbs reflexes of **pa[ka]-* can have both types of functions, as with the Bauan Fijian and Mokilese verbs listed below. Harrison (1982: 198-199) proposes that the increased actorhood usage was the older function of **pa[ka]-*. Evidence for this is that the forms which reflect more conservative transitive marking have the increased actorhood interpretations. Thus the Bauan form *vaka-rai-ci* 'to inspect something' has the transitive suffix *-ci*, the one, which on the basis of the matching 'plain' transitive form, can be taken to be conservative, whereas the form *vaka-rai-taki* 'to show someone', with the valency-increasing function, takes the productive transitive suffix *-taki*. In Mokilese the increased actorhood forms *koa-doadoahk-ao* 'to work on something' and *koa-rong-e* 'to listen to something' preserve historical final vowels in the transitive forms and undergo morphophonemic changes which are possibly old, whereas the valency-increasing forms do not show morphophonemic changes and take the productive transitive suffix *-i*.

Bauan Fijian	rai-ci	*to see something*
	vaka-rai-ci	*to inspect something*
	vaka-rai-taki	*to show someone*
Mokilese	doadoahk	*to work*
	koa-doadoahk-oa	*to work on something*
	ka-doadoahk-i	*to make someone work*
	rong	*to hear*
	koa-rong-e	*to listen to something*
	ka-rong-i	*to make someone hear*

(Harrison 1982: 198-199)

Table 5.8 shows the development of the prefix **pa[ka]-*, following Harrison (1982). In pre-Proto Oceanic (stage I) **pa[ka]-* occurred with psychological intradirectives to indicate increased volition of the agent participant. It also had such a function with adverbials. With adjectival forms **pa[ka]-* had a causative function, deriving a transitive verb with which the S argument corresponded to the O argument and a new participant was expressed as A. Stage II shows the extension of the causative use to psychological intradirectives and finally in stage III this function was extended to physical intradirectives also.

Table 5.8: Development of Proto Oceanic **pa[ka]-* after Harrsion (1982)

	intradirectives		adverbial	adjectival
	physical	psychological		
stage I pre-POc	_	A_X V (O_Y) A_X paka-V (O_Y)	S_X V S_X paka-V	S_X V A_Z paka-V O_X
stage II pre-POc	_	A_X V (O_Y) A_X paka-V (O_Y) S_X V **A_Z paka-V O_X**	S_X V S_X paka-V	S_X V A_Z paka-V O_X
stage III POc	S_X V **A_Z paka-V O_X**	A_X V (O_Y) A_X paka-V (O_X) S_X V A_Z paka-V O_X	S_X V S_X paka-V	S_X V A_Z paka-V O_X

Harrison's (1982) analysis of **akin[i]* differs most from that of Pawley (1973) in that he proposes functions of the antecedent of Proto Oceanic **akin[i]* in order to explain some of the varied usages of modern reflexes. However, the actual proposals for Proto Oceanic have strong similarities. Table 5.9 shows a comparison of the two analyses. The functions in plain text match between the two analyses and those in italics are different. The two uses of **akin[i]* are the applicative and the causative derivations. In terms of the applicative function both analyses propose that **akin[i]* allowed participants of particular semantic roles to be expressed as the O argument. Under Pawley's analysis **akin[i]* marked a concomitant O with intradirective verbs, and this corresponds with Harrison's confective function with physical intradirectives. Pawley states that **akin[i]* marked a cause participant as O with spontaneous transitives. This corresponds in part with Harrison's refective function with psychological intradirectives, although under Harrison's analysis **akin[i]* marked participants with a broader range of semantic roles, including stimulus, source and reason participants. Pawley also proposes that **akin[i]* marked an instrument, beneficiary or cause participant as O with deliberate transitives, whereas Harrison suggests these uses in the modern languages to be later developments. Pawley mentions briefly that some 'stative' verbs in Proto Oceanic could take **akin[i]*, presumably with a causative function. Harrison (1982) proposes that the original function of **akin[i]* was the causative one, occurring with both physical and psychological intradirective verbs.

Table 5.9: Comparison of Pawley's (1973) and Harrison's (1982) analyses of Proto Oceanic **akin[i]*

Pawley 1973		Harrison 1982
(i) applicative use: denoting particular types of participants as O with particular types of verbs		
concomitant with intradirectives	=	confective use with physical intradirectives
cause with spontaneous transitives	=	refective use with psychological intradirectives
instrument and beneficiary with deliberate transitives		(later developments)
(ii) causative use		
occurred with some stative verbs		
		original function with physical and psychological intradirectives

5.2.3 CLARK 1973

Clark (1973: 565) provides an historical explanation of the variation between the two forms **-Caki* and **-Cakini* in Proto Central/Eastern Oceanic. He proposes that the morpheme *-Caki(ni)* comprised two parts. The first, **-Caki*, was not a transitive marker in itself and the exact meaning of the **-Caki* part of this morpheme is something which Clark (1973) suggests needs further study. In modern languages it usually has the effect of altering the verb's choice of O argument. When **-Caki* occurred in a transitive clause it took a following transitive suffix **-ni* before the object enclitics. Clark (1973: 565) suggests that the forms **-Caki* and **-Cakini* result from an earlier suffix **-akin* which was followed by the transitive suffix **-i* when occurring with object enclitics. After the loss of final consonants the **n* of **akin*, which would have been lost from **akin*, but retained before **-i*, was reanalysed as part of the transitive suffix. At the same time the final consonant of the verb stem was reanalysed as part of the suffix. This resulted in the forms **-Caki* and **-Cakini*.

Keesing (1985: 41) suggests that Clark's (1973: 565) proposal for Proto Central/Eastern Oceanic, is the best analysis for the reflex of **akin[i]* in Kwaio (SES). In Kwaio **akin[i]* is reflected as *-Ca'i* and *-Ce'eni*, with a shift in the vowels from *a'i* > *e'e* in the longer form of the suffix (Keesing 1985: 40). This morpheme is apparently best analysed as comprising two segments. The first, *-Ca'i* (*-Ce'e*), carries the semantic information and the second, *-ni*, marks the form as transitive. The suffix *-Ca'i* when attached to a verb stem adds to or alters the meaning of the unmarked stem, or the stem marked with the transitive suffix *-Ci*, the reflex of Proto Oceanic **-i*. Keesing (1985: 42-43) notes that while there are a few patterns where *-Ca'i* indicates regular changes in meaning, on the whole a regular function of it cannot be established. That *-Ca'i* and *-Ce'e* can indeed be analysed as the same form, one used intransitively and the other occurring in transitive clauses followed by *-ni*, can be seen from the following examples of a verb root used in its various forms, where both *-Ca'i* and *-Ce'eni* appear to derive the same semantic difference. The following Kwaio verbs, all based on the root *labu* 'hit', show the use of the suffix *-Ce'eni*. The first form *labu-si* 'hit sth' has the transitive suffix *-Ci*. The form *labu-te'e-ni* with the suffix *-Ce'eni* involves a change in meaning from 'hit' to 'wrestle', but is still transitive. With the form *kwai-labu-ta'i* 'wrestle one another', the form *labu-te'e-ni* takes the reciprocal prefix *kwai-* and is syntactically intransitive. The final *-ni* no longer occurs and there is a change from *-Ce'e* to *-Ca'i*, but the altered meaning is retained.

labu-si-(a)	*'hit (esp. with a stick)'*
labu-te'e-ni-(a)	*'throw down, wrestle down'*
kwai-labu-ta'i	*'wrestle with one another'*

(Keesing 1975: 108 & Keesing 1985: 42)

Table 5.10 shows the stages and changes which Clark's (1973) analysis of **akin[i]* proposes. The changes are shown as they would have occurred with a verb of the phonological shape **CVCVC*. The final row of the table gives Kwaio reflexes of these forms.

Table 5.10: The development of Proto Oceanic **akin[i]* after Clark (1973: 565)

	not followed by object enclitics	followed by object enclitics	
POc	*CVCVC-akin	*CVCVC-akin-i-	
PCEOc	*CVCV-Caki	*CVCV-Caki-ni-	loss of final consonants, followed by reanalysis of **n* as part of the **-i* suffix
Kwaio	CVCV-Ca'i	CVCV-Ce'eni-	For example: ano-ma'i *perform act of burying sth* ano-me'e-ni-a *bury it*

5.3 Questions about Proto Oceanic **akin[i]*

So what was Proto Oceanic **akin[i]*? There seem to be several issues that need to be considered in any attempt to further describe Proto Oceanic **akin[i]*. First, what was the morphemic status of Proto Oceanic **akin[i]*? Was it a monomorphemic element or did it comprise more than one morpheme? The modern reflexes of **akin[i]* have a range of functions and exactly which function or functions can be attributed to the Proto Oceanic form needs to be considered. Also still unresolved about Proto Oceanic **akin[i]* is its degree of phonological independence. Was it a free form, a bound form, or both? And if it were a free form, what was its part of speech? Finally there is also the question of how many related forms occurred in Proto Oceanic. Modern morphemes related in form and function suggest the reconstruction of at least **akini*, **aki*, **kini*, and **ni*. But were all

these forms really present in Proto Oceanic and if so were they separate morphemes with different functions or were they variants of a single morpheme?

5.4 **AKIN[I]* AS ONE MORPHEME OR TWO

As mentioned in the previous chapter, modern Oceanic forms reflect a Proto Oceanic form **akini* or **aki*, whereas non-Oceanic cognates reflect the slightly different form **akən*. That the non-Oceanic forms described are indeed cognate with Proto Oceanic **akin[i]* is clear not only from the similarity in form, but also from the similarity in functions. However, the expected reflex of **akən* in Proto Oceanic is ***akon*, so there has been a final vowel added and an irregular change in the form of the medial vowel.

Following Clark (1973), the final **-i* of **akini* is analysed as the transitive suffix. In Chapter 3 it was shown that the distribution of **-i* in Proto Oceanic was phonologically determined, occurring with consonant-final and **a*-final forms between the verb stem and the object enclitics. A verb plus **akon* would therefore have taken **-i* when used transitively and followed by the object enclitics[5]. The change in form of the medial vowel must have been an irregular change by vowel assimilation, and thus pre-Proto Oceanic **akon-i-* became **akin-i-*. As noted by Clark (1973) the subsequent loss of final consonants has led to the reanalysis of the forms as **aki* and **aki-ni-*. Thus the form reconstructed as **akini* is actually bimorphemic comprising **akin* and the transitive suffix **-i*[6].

5.5 FUNCTIONS OF **AKIN[I]*

The previous chapter described the varying functions of Oceanic reflexes and non-Oceanic cognates of **akin[i]*, but which of these functions are reconstructable for Proto Oceanic? Before examining this question a brief comparison of the modern uses of **akin[i]* reflexes across languages and with cognates in non-Oceanic languages is given.

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[5] Section 5.8 presents an explanation of why the transitive suffix would have been added to pre-Proto Oceanic **akon*.

[6] Despite this analysis of **akin[i]* as a bimorphemic form comprising **akin* and **-i*, it will be continued to be represented as **akin[i]*, except in instances where it is specifically the transitive form **akin-i-* or the intransitive form **akin* which are being described.

5.5.1 Comparison of modern functions

The modern reflexes and cognates of **akin[i]* will be considered in terms of two kinds of functions. The first is grammatical, that is describing **akin[i]* reflexes and cognates in terms of their grammatical categories, either as a lexical item on their own or as a derivational element and the category of the derived form. The second kind of function is one of participant role marking, and involves describing **akin[i]* reflexes and cognates in terms of the semantic role of the participant denoted by the **akin[i]* form or the form derived with **akin[i]*.

Table 5.11 shows the kinds of grammatical functions found with **akin[i]* reflexes in Oceanic languages. The most commonly found usage of **akin[i]* reflexes is as a transitivising suffix, deriving transitive verbs from intransitive ones. In most languages such suffixes have both causative and applicative uses, determined by the verb stem to which the suffix is attached. An exception is Tawala (PT) where the reflex of **akin[i]* has only the applicative derivation. There do not seem to be languages where the reflex of **akin[i]* has only the causative use. As well as the true applicative function of adding an O argument, these reflexes of **akin[i]* often have a valency-rearranging usage, with which the **akin[i]* form allows as O argument a participant with a different semantic role than would occur with another transitive form of the verb. In this respect verbs with reflexes of **akin[i]* contrast with verbs with reflexes of the transitive suffix **-i* and/or the object enclitics

The other commonly found usage of **akin[i]* reflexes is as a verbal preposition, forms which have both prepositional and verbal properties. Like prepositions they act as heads of prepositional phrases, introducing oblique arguments, and like verbs they take the verbal object markers indexing the person and number of their objects.

In several languages from different subgroups reflexes of **aki* (without the final **ni* segment) have detransitivising functions. As described in the previous chapter reflexes of **aki* in Micronesian languages, Wayan Fijian and Kara (MM) can derive intransitive verbs, with which the O argument of the transitive form of the verb corresponds with the S argument of the intransitive form. In Kara and Mokilese (Mic) detransitivising reflexes of **aki* also occur in object incorporation constructions. The other type of intransitive uses of **akin[i]* reflexes are with reflexes of the Proto Oceanic reciprocal prefix **paRi-*. In Kara *-ai* occurs with *fe-* when it denotes a plural agent participant and when the patient participant is not mentioned. In Tongan, however, *-Caki* does not occur with *fe-* in this usage, but rather co-occurs with *fe-* with the meaning of

'with each other'. In Fijian and Polynesian languages motion verbs with reflexes of **paRi-* and **akin[i]* indicate the meaning of 'in various directions' or 'hither and thither'.

The fifth function of **akin[i]* reflexes noted in Table 5.11 is to my knowledge found only in Fijian and Polynesian languages. This is the use of such forms as anaphoric elements which occur as the trace of an oblique argument that is expressed outside of its usual position, either fronted within the clause, or expressed outside of the clause altogether.

Table 5.11: Grammatical functions of **akin[i]* reflexes

Function	Languages
(a) transitivising	
causative and applicative	Yapese, Manam, Motu, Longgu, Mota, N-E Ambae, Fijian languages
applicative only	Tawala
(b) detransitivising	
Undergoer subject verbs	Kara, Micronesian languages, Wayan Fijian
object incorporation	Kara, Mokilese
(c) with reciprocals	Kara, Fijian languages, Polynesian languages
(d) prepositional	Tolo, Tamambo, Woleaian, Tongan
(e) trace elements	Bauan Fijian, Tongan

The second kind of function of **akin[i]* reflexes is the participant role marking one. Reflexes of **akin[i]* or forms derived with reflexes of **akin[i]* denote participants of particular semantic roles. By the participant denoted by reflexes of **akin[i]* is meant: the O argument of a verb with the applicative uses of the transitivising affixes; the object of a prepositional reflex; the participant to which an anaphoric element refers; and the S argument of a verb with the detransitivising reflexes. The types of participants, in terms of semantic roles, denoted by these types of **akin[i]* reflexes are given in Table 5.12.

Table 5.12: Types of participants denoted by **akin[i]* reflexes

semantic role of participant	applicative affixes	prepositions	anaphoric elements	detransitivising affixes
patient	_	_	_	Micronesian languages, Wayan Fijian
concomitant	Mussau, Motu, Tawala, Longgu, N-E Ambae, Kosraean, Fijian languages	Woleaian		
cause or stimulus	Motu, Tawala, Mota, Fijian languages	Tamambo, Woleaian		
content	Manam, Motu, Tawala, N-E Ambae, Fijian	Tolo, Tamambo,		
product	Longgu, N-E Ambae, Fijian languages	Woleaian		
instrument	Motu, Longgu, Mota, Kosraean, Fijian languages	Tolo, Tongan	Bauan Fijian, Tongan	Wayan Fijian

The causative uses of the transitivising reflexes of **akin[i]* add an agent participant to the clause and this use will be discussed later. As can be seen, the types of participants denoted by **akin[i]* reflexes are similar across languages and also across the different grammatical functions. The applicative affixes reflecting **akin[i]* clearly denote the same types of participants across languages. In fact Pawley's (1986) analysis of Bauan Fijian *-Caki* in terms of verb class and semantic role of the participant expressed as the O argument can be extended to Oceanic languages in general. Thus, applicative uses of **akin[i]* reflexes denote:

a) a concomitant role with motion verbs;
b) a cause or stimulus role with emotion verbs;
c) a content role with speech and cognition verbs;
d) a product role with bodily function verbs; and
e) an instrument role with process-action verbs.

Comparison of the two kinds of functions of **akin[i]* reflexes in Oceanic languages with cognates in non-Oceanic languages shows many similarities. Table 5.13 shows the types of grammatical functions of **akin[i]* cognates in non-Oceanic languages, along with the Oceanic reflexes, repeated from Table 5.11. In a similar way to Oceanic reflexes, the most commonly found function of non-Oceanic **akin[i]* cognates is as a transitivising affix with both causative and applicative uses. Several non-Oceanic languages also have **akin[i]* cognates with only an applicative use, but again no forms were found that had only a causative function. The other uses found with **akin[i]* reflexes in Oceanic languages are not so commonly found with cognates in non-Oceanic languages. At least two languages, Tukang Besi and Malay, have prepositional cognates of **akin[i]*. Only one language, Buru, was found with a detransitivising use of an **akin[i]* cognate.

Table 5.13: Grammatical functions of **akin[i]* reflexes and cognates

function	Oceanic languages	non-Oceanic languages
1) transitivising		
a) causative and applicative	Yapese, Manam, Motu, Longgu, Mota, N-E Ambae, Fijian languages	Karo Batak, Toba Batak, Wolio, Buru
b) applicative only	Tawala	Tukang Besi, Muna (one verb), Taba
3) Detransitivising		
a) Undergoer subject verbs	Kara, Micronesian languages, Wayan Fijian	_
b) object incorporation	Kara, Mokilese	Buru
4) with reciprocals	Kara, Wayan Fijian, Samoan, Tongan	_
5) prepositional	Tolo, Tamambo, Wayan Fijian, Tongan	Tukang Besi, Malay

Table 5.14 gives a comparison of **akin[i]* reflexes and cognates in terms of the participant role marking function. The data presented here are only the applicative and prepositional reflexes and cognates. Languages listed under (i) for each use are those with applicative affixes and those under (ii) have prepositional forms. For the most part the types of participants denoted by **akin[i]* cognates in non-Oceanic languages are the same as those denoted by **akin[i]* reflexes in Oceanic languages. There are, however, some differences. Denoting the cause or stimulus participant with psychological and emotion verbs which is quite a widespread usage of **akin[i]* reflexes in Oceanic languages was not found in non-Oceanic languages. The product role with bodily function verbs and the content role with verbs of speech and cognition are also quite widespread usages in Oceanic languages, but were found each in only one non-Oceanic language. The usage of denoting a beneficiary participant occurs in a range of non-Oceanic languages, but is restricted to the Ulithian verbal preposition *yixili* in Oceanic languages.

Table 5.14: Participant role marking of **akin[i]* reflexes and cognates

semantic role of participant	Oceanic languages	non-Oceanic languages
concomitant	(i) Mussau, Motu, Tawala, Longgu, N-E Ambae, Kosraean, Fijian languages	(i) Toba Batak, Muna, Taba
	(ii) Woleaian	(ii) _
cause/stimulus	(i) Motu, Tawala, Mota, Fijian languages	(i) _
	(ii) Tamambo, Woleaian	(ii) _
content	(i) Manam, Motu, Tawala , N-E Ambae, Fijian	(i) Karo Batak
	(ii) Tolo, Tamambo,	
product	(i) Longgu, N-E Ambae, Fijian languages	(i) Taba
	(ii) Woleaian	(ii) _
instrument	(i) Motu, Longgu, Mota, Kosraean, Fijian languages	(i) Karo Batak, Toba Batak, Wolio, Tukang Besi, Taba
	(ii) Tolo, Tongan	(ii) _
beneficiary	(i) _	(i) Toba Batak (rare), Wolio, Tukang Besi, Buru
	(ii) Ulithian	(ii) Tukang Besi

5.5.2 FUNCTIONS OF **AKIN[I]* IN PROTO OCEANIC

The grammatical functions which would appear to be old ones, on the basis that they occur in both Oceanic and non-Oceanic languages, are the transitivising usages, both causative and applicative, and perhaps also the prepositional usages, though these are not well supported for non-Oceanic languages. The applicative and prepositional uses of **akin[i]* forms can broadly be described as a single function, that of introducing a non-agent participant into the clause. When used as an applicative affix this participant would have been expressed as the O argument of the verb and when used as a preposition the participant would have been expressed as an oblique argument, that is the object of the preposition. Following Pawley (1973, 1986), this function can then be considered in

terms of correlations between the type of participants denoted and semantic classes of verbs. Table 5.15 shows the different types of participants denoted by **akin[i]* forms when used with different types of verbs.

Table 5.15: Roles denoted by **akin[i]* reflexes and cognates

type of verb	role marked	languages	
motion verbs	concomitant	Oc	Tawala, Longgu, N-E Ambae, Kosraean, Fijian, Woleaian
		non-Oc	Toba Batak, Muna, Taba
psychological and emotional states	cause/stimulus	Oc	Tawala, Tamambo, Woleaian, Fijian
		non-Oc	Toba Batak, Wolio, Buru, Taba
process-action	instrument	Oc	Motu, Tolo, Tamambo, Kosraean, Fijian, Tongan
		non-Oc	Karo Batak, Toba Batak, Wolio, Tukang Besi, Taba
	beneficiary	Oc	Ulithian
		non-Oc	Toba Batak (rare), Wolio, Tukang Besi, Buru
cognition and speech	content	Oc	Tawala, Manam, Tolo, N-E Ambae, Tamambo, Woleaian, Fijian
		non-Oc	Karo Batak
excretion/ secretion	product	Oc	Manam, Longgu, N-E Ambae, Fijian, Woleaian
		non-Oc	Taba

The marking of a concomitant role with verbs of motion is widespread in Oceanic languages and is also found in a number of non-Oceanic languages. With verbs of psychological and emotional states, **akin[i]* reflexes and cognates denote cause or stimulus participants in a range of Oceanic and non-Oceanic languages. The marking of instrumental participants with process-action verbs is also widely found in both Oceanic and non-Oceanic languages.

There are two other functions which occur with **akin[i]* reflexes in genetically and geographically diverse Oceanic languages: marking the content of speech and

cognition and marking the product with verbs of excretion or secretion. These functions are each found in one non-Oceanic language in the sample, Karo Batak and Taba, respectively.

As shown by the examples in Table 5.16, in a number of Oceanic languages reflexes of **akin[i]* occur with verbs of speech and cognition denoting the content participant.

Table 5.16: Speech and cognition verbs with **akin[i]* reflexes

intransitive		transitive with **akin[i]*	
Manam			
nanari	*tell a story*	nanari-t-aʔ-	*tell a story about*
Motu			
gwau	*to speak*	gwau-rai-a	*to speak of, about*
habade-a	*to accuse*	habade-lai-a	*to accuse of (with)*
heaɣi	*to boast*	heaɣi-lai-a	*to brag about*
North-East Ambae			
domi	*to think*	domi-gi(ni)	*to think about*
laqa	*to speak*	laqa-gi(ni)	*to speak about*
stori	*to chat, tell a story*	stori-gi(ni)	*to chat, tell a story about*
Bauan Fijian			
sure	*ask a person's help*	sure-taki	*ask sth*
tagi	*cry*	tagi-caki	*cry about*
vosa	*speak, talk*	vosa-taki	*talk about*

(data from Lichtenberk 1983, Lister-Turner & Clark 1954, Hyslop 1998 and Pawley 1986)

Verbs of excretion and secretion are striking in that they behave in very similar ways across Oceanic languages with reflexes of both **-i* and **akin[i]*. Table 5.17 gives examples of these verbs from several Oceanic languages and as can be seen the roles marked by the reflexes of **-i* and **akin[i]* are consistent across languages. Thus reflexes of **-i* mark as the O argument a location and **akin[i]* reflexes mark as the O argument the product. Examples (28) and (29) give sentential examples of one of these verbs from Manam (NNG). In Manam, the Proto Oceanic transitive suffix **-i* has been renalysed as a third person object suffix.

28) pátu i-tamimí-r-i
stone 3sg.RL-urinate-THC-3pl.OBJ
She urinated on the stones.
(Lichtenberk 1983: 177)

29) áine baŋ i-tamimi-r-á?-i
woman taro 3sg.RL-urinate-THC-AKI-3pl.OBJ
The (mythical) woman urinated taros (i.e. taros grew out of her urine).
(Lichtenberk 1983: 177)

Table 5.17: Verbs of excretion/secretion in Oceanic

transitive with *-*i* and/or object suffixes		transitive with **akin[i]*	
Manam			
tamimi-r-	*to urinate on sth*	tamimi-r-a?-	*to urinate sth*
tabe?e-r-	*to defecate on sth*	tabe?e-r-a?-	*to defecate sth*
Longgu			
mimi-si	*to urinate on sth*	mimi-ta?ini-	*to urinate sth*
moa-li	*to vomit on sth*	moa-ta?ini-	*to vomit sth*
poga-li	*erupt on sth*	poga-ta?ini-	*erupt sth*
N-E Ambae			
mimi-hi	*to urinate on s.o.*	mimi-gi(ni)	*to urinate sth*
dedeo-si	*to defecate on s.o./sth*	deo-gi(ni)	*to defecate sth*
lue-hi	*to vomit on s.o./sth*	lue-gi(ni)	*to vomit sth up*
lodo-si	*to spit on s.o./sth*	lodo-gi(ni)	*to spit sth out*
Boumaa Fijian			
miimi-ca	*urinate on sth*	miimi-ca'ina	*urinate sth*
ve'a-ca	*defecate on sth*	ve'a-ca'ina	*defecate sth*
lua-ca	*vomit onto sth*	lua-ra'ina	*vomit sth*
kaasivi-ta	*spit on sth*	kaasivi-ta'ina	*spit sth*

(data from Lichtenberk 1983: 177, Hill 1992: 58, Hyslop 1998: 344, Dixon 1988: 218)

A function which is found more commonly in non-Oceanic languages than Oceanic languages is that of marking a beneficiary participant. So far, I have found only

one Oceanic language which has this function. In Ulithian the verbal preposition *yixili* can be used to introduce a beneficiary participant, as shown by (30).

30) lulapa wee ye sa taptape mogoyo **yixili**-yvre saldawe kawee
king DET 3sg PERF need food PREP-3pl soldier DET
The king needed food for the soldiers.

(Sohn & Bender 1973: 181)

In a range of non-Oceanic languages cognates of **akin[i]* denote a beneficiary participant. In Tukang Besi the applicative suffix *-ako* introduces participants with a range of semantic roles, however, as a main verb *ako* 'do for' has only the beneficiary meaning. The fact that it is the benefactive which occurs with the only verbal cognate of **akin[i]* raises the possibility that this is an old function, especially if Harrison's (1982) analysis of the antecedent of **akin[i]* as a verb is correct.

Following Pawley (1973), it is suggested that the majority of these participant role marking functions were also present in Proto Oceanic. Table 5.18 gives the proposed types of participants denoted by **akin[i]* with the different types of verbs. At present I am not making any claim about whether Proto Oceanic **akin[i]* was a free form or a bound form, or whether the participant marked by **akin[i]* was a core or oblique argument.

Table 5.18: Participant role marking functions of **akin[i]* in Proto Oceanic

type of verb	role marked by **akin[i]*
motion verbs	concomitant
psychological and emotional states	cause / stimulus
speech and cognition	content
excretion/secretion	product
process-action verbs	instrument, benefactive

The difference between this reconstruction and Pawley's (1973) is that the role of the participant denoted with verbs of psychological and emotional states is more general, including both cause and stimulus. According to Pawley's (1973) reconstruction with such verbs **-i* and/or the object suffixes denoted a stimulus participant and **akin[i]* denoted a cause participant. In Fijian languages verbs of psychological and emotional

states with reflexes of *-*i* and **akin[i]* show such a distinction in function, as shown by the examples from Bauan Fijian given below. However, such a distinction does not seem to be found in languages outside of Fiji, and so while it is possible that the Fijian languages have retained an original contrast, a more detailed study of these verbs in other Oceanic languages is needed to determine if this is the case.

gadre-vi	*desire sth*	gadre-vaki	*be delighted with sth*
leva-ci	*be angry with s.o.*	leva-taki	*be angry about sth*
tadra-i	*dream (a dream)*	tadra-taki	*dream of s.o.*

(data from Pawley 1986: 94-95)

That **akin[i]* denoted beneficiary participants is reconstructed on the basis of Ulithian and the non-Oceanic languages. A possible reason for why such a use of **akin[i]* is widely-distributed in non-Oceanic languages, but is only rarely reflected in Oceanic languages is that another construction has taken over this function. In a number of Oceanic languages **pani* 'to give' is reflected as a grammatical morpheme that marks goal and/or beneficiary participants (Lichtenberk 1985). For example, in Gedaged (NNG) one reflex of **pani* is the form *pan*, and as shown by (31) below, it marks a beneficiary participant. It is possible that reflexes of **akin[i]* have lost the use of denoting a beneficiary participant as grammaticised reflexes of **pani* developed such a use.

31) ab sas-e pan-ag-oi
house build-it PANI-me-IRR
Build a house for me.

(Lichtenberk 1985: 11)

Some **akin[i]* reflexes and cognates which are transitivising affixes have a causative function as well as the applicative one. In this way **akin[i]* reflexes and cognates behave like the Proto Oceanic transitivising suffix *-*i* which had a causative function with Undergoer subject verbs and an applicative function with Actor subject verbs. Such uses obviously need to be described in a different way from the description just given for the applicative and prepositional uses of **akin[i]*. As noted in the previous section the causative function is found with Oceanic reflexes of **akin[i]* in languages from different subgroups and geographical regions, including Yapese, Manam, Motu, Longgu, Mota, North-East Ambae, Boumaa Fijian and Tongan. In some languages, such as Motu and Longgu it is only one verb that has been found to have an **akin[i]* reflex with the causative use, and although other languages have a larger number of such forms, it never seems to be very many verbs which take **akin[i]* reflexes with the causative use.

The applicative uses seem to be more common. Table 5.19 gives examples of verbs which take **akin[i]* with a causative function in Oceanic languages, and Table 5.20 gives examples of the causative use of **akin[i]* cognates in non-Oceanic languages.

Table 5.19: Causative uses of **akin[i]* reflexes

intransitive		causative with reflexes of **akin[i]*	
Yapese			
mak'	*to become swamped*	mak'-eag	*to swamp, cause to sink*
thiil	*to be different*	thil-yeeg	*to differentiate, change*
Motu			
badu	*be angry*	badubadu-rai-	*to provoke, tease, make angry*
Manam			
mambu	*be finished*	mamabu-aʔ-	*to finish*
ʔaiboaŋ	*be strong*	ʔaiboaŋ-aʔ-	*to strengthen, encourage*
taliʔubi	*be entangled*	taliʔubi-ŋ-aʔ-	*to entangle*
ado	*be straight*	ado-r-aʔ-	*to straighten*
gege	*roll*	gege-aʔ-	*roll sth*
alale	*walk*	alale-aʔ-	*walk s.o., help s.o. walk*
soalili	*twirl*	soalili-ŋ-aʔ-	*twirl sth*
moaʔusu	*shake*	moaʔusu-ŋ-aʔ-	*shake sth*
Longgu			
dau	*to hang down, drop anchor*	dau-ra'ini-	*to hang sth up*
Kwaio			
filu	*be tangled*	filu-e'eni-	*braid, twist*
isi	*spread out*	isi-le'eni-	*spread tr.*
kʷasi	*wild, untamed*	kʷasi-le'eni	*cause to run wild*

Table 5.19 (cont)

intransitive		causative with reflexes of **akin[i]*	
sigi	*finished, done*	sigi-fe'eni-	*finish completely*
fou	*be public, disclosed*	fou-le'eni-	*disclose sth*
abu	*be off limits*	abu-nge'eni-	*observe sacredness of*
ngasi	*be strong firm*	ngasi-le'eni-	*strengthen resolve of s.o. against a course of action*
dala	*be clear, smooth*	dala-me'eni-	*clear by burning stumps (garden)*
ngado	*be stable*	ngado-le'eni-	*stabilize, steady, solidify, firm sth*
North-East Ambae			
bulu	*to join*	bulu-tagi(ni)	*to join together*
dule	*to hang*	dule-tagi(ni)	*to hang sth*
labe	*to stand*	labe-tagi(ni)	*to stand sth up*
saka	*go on top of*	saka-tagi(ni)	*to put sth on top off*
Boumaa Fijian			
baasi'a	*appear, pass through*	baasi'a-ta'ina	*make pass through*
cara	*be swept clear*	cara-ma'ina	*sweep to clear a path*
curu	*go through, enter*	curu-ma'ina	*put in/through*
lo'uyara	*be postponed*	lo'uyara-ta'ina	*postpone*
siisili	*bathe*	sili-va'ina	*use/wet net for first time*
tei	*be planted, cultivated*	tei-va'ina	*clear & plant, cultivate*
voli	*be bought, be sold*	voli-ta'ina	*sell*
voli-	*buy*		
volo	*be hidden, hide oneself*	volo-ta'ina	*hide*
vuluvulu	*wash hands*	vuluvulu-ta'ina	*wash s.o.'s hands*
vuunau	*be advised*	vuunau-ta'ina	*advise sth*
'ari	*be scraped*	'ari-ta'ina	*scrape*

Table 5.19 (cont)

intransitive		causative with reflexes of **akin[i]*	
Tongan			
hao	*escape*	hao-faki	*rescue*
hū	*enter*	hū-maki	*insert*
ako	*learn*	ako-naki-'i	*instruct*
Samoan			
puni	*blocked, clogged*	puni-ta'i	*block, stop*

(data from Jensen 1977b, Lister-Turner & Clark 1954, Lichtenberk 1983, Hill 1992, Keesing 1975, Codrington 1885, Hyslop 1998, Dixon 1988, Churchward 1953, Mosel & Hovdhaugen 1992)

Table 5.20: Causative uses of **akin[i]* cognates in non-Oceanic languages

Karo Batak			
keri	*depleted*	keri-ken	*to deplete, use up*
belin	*big*	belin-ken	*to make big, exaggerate*
pajek	*vertical*	pajek-ken	*to erect, make stand up*
kabang	*to fly*	kabang-ken	*to make fly, blow away*
rëh	*to come*	rëh-ken	*to make come, summon*
tading	*to stay*	tading-ken	*to make remain, leave behind*
Buru			
mangi	*dry*	mangi-k	*dry sth*

(data from Woollams 1996 and Grimes 1991)

That the causative function of **akin[i]* reflexes and cognates is so widespread suggests that it too is reconstructable for Proto Oceanic. Harrison (1982) reconstructs the causative function as the original function of **akin[i]* (or its antecedent), with the confective (concomitant participant with motion verbs) and refective (stimulus participant with psychological verbs) functions already developed or in the process of developing in Proto Oceanic. The comparison of non-Oceanic cognates, however, suggests that either:

a) Harrison's (1982) causative function was even further back in time than he proposes and the shift to confective and refective uses had started not only in

the history of Oceanic, but in the ancestor language of many non-Oceanic languages also; or

b) the shift from a causative use to the confective and refective uses occurred as parallel innovations in Oceanic and non-Oceanic languages.

Harrison (1982) proposes that the causative use of **akin[i]* occurred with physical intradirectives, or motion verbs. Evidence from modern languages also suggests that **akin[i]* with such verbs denoted a concomitant participant. In languages such as North-East Ambae and Bauan Fijian reflexes of **akin[i]* with motion verbs have both types of uses, as demonstrated by the examples in Table 5.21. In Manam *-a?*, the reflex of **akin[i]*, has a causative use with motion verbs. As mentioned in section 5.2.2 the difference between denoting a concomitant participant and a causative use with motion verbs is whether the agent participant is also undergoing the event. Thus with the concomitant use in Bauan Fijian *qalo-vaki* 'to swim with' the agent participant is moving through the water along with the participant expressed as O, whereas with the causative use in *dromu-caki* 'to push something under the water' the agent participant causes the participant expressed as O to move down into the water, but does not also move into the water. In some cases which derivation applies may be ambiguous. For example, the Manam form *alale-a?* 'to help s.o. walk' syntactically has a causative organisation with which the participant expressed as the S of the intransitive form is expressed as the O of the transitive form and the introduced participant is expressed as the A, but it is also open to the concomitant interpretation of 'to walk with s.o.'. It appears likely that with some Undergoer subject motion verbs in Proto Oceanic **akin[i]* had a causative derivation, as its reflexes do in a number of languages.

Table 5.21: **akin[i]* reflexes with motion verbs

intransitive		transitive with **akin[i]*		
Manam				
alale	*walk*	alale-a?	*walk s.o., help s.o. walk*	CAUS
gege	*roll*	gege-a?	*roll (tr.)*	CAUS
soalili	*twirl*	soalili-ŋ-a?	*twirl (tr.)*	CAUS
moa?usu	*shake*	moa?usu-ŋ-a?	*shake (tr.)*	CAUS
North-East Ambae				
saka	*to go on top of*	saka-tagi(ni)	*to put sth on top of*	CAUS
toa	*to run*	toa-gi(ni)	*to run off with sth*	CON
hivo	*to go down*	hivo-gi(ni)	*to go down with sth*	CON
vano	*to go*	vano-gi(ni)	*to go with sth*	CON
dige	*to walk*	dige-gi(ni)	*to walk with s.o.*	CON
Bauan Fijian				
curu	*enter*	curu-maki	*to insert sth*	CAUS
sili	*dive*	sili-maki	*to dowse (net)*	CAUS
dromu	*sink under water*	dromu-caki	*to push sth under water*	CAUS
cici	*run*	cici-vaki	*run with sth*	CON
qalo	*swim*	qalo-vaki	*swim with sth*	CON
soko	*sail*	soko-taki	*sail (sth)*	CON

(Lichtenberk 1983: 231 & 234, Hyslop 1998: 340 & 347, Pawley 1986: 92, Harrison 1982: 199-200, Capell 1968)

Another function of **akin[i]* reflexes that is found in a range of Oceanic languages is the detransitivising uses. Were such uses also present in Proto Oceanic?

There is formal evidence which suggests that the detransitivising uses have developed from the transitivising ones. The antecedent of Proto Oceanic **akin-i-* was **akən*, and at some pre-Proto Oceanic stage this form came to take the transitive suffix **-i* which in turn led to an irregular change of vowel assimilation giving Proto Oceanic **akin-i-* rather then the expected form ***akon-i-*. If the detransitivising uses were present prior to these two changes the expected system in Proto Oceanic would be a transitive form **akin-i-* and an intransitive form ***akon*. However, the detransitivising reflexes in Oceanic languages reflect **akin*, with the high front vowel, suggesting that the detransitivising uses developed from the transitivising ones. But did these detransitivising

uses develop prior to Proto Oceanic or do they represent post-Proto Oceanic developments? It seems that in fact they represent post-Proto Oceanic innovations. More detailed data are needed before any hypotheses can be put forward about the development of the detransitivising uses of **akin* reflexes in Kara and other Meso-Melanesian langauges. The other detransitivising reflexes of **akin* are found in Micronesian and Fijian languages and in both groups of languages such forms derive intransitive verbs with which the S argument corresponds to the transitive O argument.

In Chapter 4, section 4.2.2 a proposed development of the detransitivising uses of Wayan Fijian *-Caki* was presented. It is proposed that such uses developed through analogy with intransitive and transitive pairs of Undergoer subject verbs which take *-Ci*. Thus the original paradigm included an unmarked intransitive form and two transitive forms, one with *-Ci* and one with *-Cakini*, as schematised under (i) in Figure 5.1. The difference bettween the two transitive forms was in the semantic role of the participant expressed as the O argument. The Wayan Fijian system is schematised under (ii) in Figure 5.1. Here a second intransitive form has developed from the transitive form with *-Cakini*, deriving a relationship analogous to the one between the unmarked intransitive form and the transitive form with *-Ci*. That is, an intransitive form with *-Caki* (*-Cakini* without the transitive ending *-i*) that takes as the S argument a participant with the same semantic role as the O argument of the transitive form with *-Cakini*. This use of *-Caki* developed first with Undergoer subject verbs and was later extended to Actor subject verbs. This hypothesis not only neatly describes the Wayan Fijian system, but it is also consistent with the reconstructed participant role marking function of **akin[i]*.

Figure 5.1: Development of detransitivising *-Caki* in Wayan Fijian

(i) pre-Wayan Fijian			(ii) Wayan Fijian		
V S_X	:	V-*Ci* O_X A_Y	V S_X	:	V-*Ci* O_X A_Y
_	:	V-*Cakini* O_Z A_Y	V-*Caki* S_Z	:	V-*Cakini* O_Z A_Y

Although the Micronesian detransitivising reflexes of **akin* have the same general function as those of the Fijian languages, that is, deriving an intransitive verb with which the S argument corresponds to the transitive O argument, they are somewhat different. In Wayan Fijian the types of participants which occur as the S argument of a verb with *-Caki* are just those types of participants that occur as the O argument of a verb with *-Cakini*, and those expected to be denoted by reflexes of **akin[i]*. However, in Micronesian

languages the participant expressed as the S argument of a verb with a reflex of **akin* generally has the role of patient and can be seen to be in a derivational relationship with transitive forms with reflexes of **-i*. Table 5.22 gives examples from Woleaian that demonstrate this. Further research is needed to determine how detransitivising **aki* developed in Micronesian languages.

Table 5.22: Woleaian verbs which take *-ag*

beli-beli	*to snap off, break off*	VN[7]
beli-ng-ag	*to be snapped off, fall off the main body*	VI (PASS)
beli-ng-i	*snap it off, break it off*	VT
fei-fei	*to tear w/ the fingers, tear apart, tatter*	VN
fei-ng-ag	*to be torn, ragged*	VI (PASS)
fei-ng-i	*tear it off, tatter it*	VT
mwulo-mwulo	*to crumple, crumpled, wrinkle, rumple*	VI/ADJ
mwulo-t-ag	*to be crumpled, wrinkled, rumpled*	VI (PASS)
mwulo-t-i	*crumple it, wrinkle it, rumple it*	VT
wau	*to hit, strike, give a blow to, hunt*	VN
wau-t-ag	*to be hit, spanked*	VI (PASS)
wau-t-i	*hit him, spank him*	VT
bugo-bugo	*to tie, bind, fasten, connect, make knots of*	VN
bugo-t-ag	*to be tied, connected, fastened, bound*	VI (PASS)
bugo-s-i	*tie it, connect it, make knots of it*	VT
shii-shii	*to wet, moisten, wash*	VN
shii-r-ag	*to be wet, moistened*	VI (PASS)
shii-r-i	*put it in water, moisten it, wet it*	VT

(data from Sohn & Tawerilmang 1976)

[7] The abbreviations here are: VN - neutral verb; VI - intransitive verb; PASS - passive; VT - transitive verb; ADJ - adjective. Neutral verbs are forms that do not take any transitive morphology or object suffixes, but which may still take an object noun (Sohn 1975: 76-77). Constructions with neutral verbs in Woleaian appear to correspond with what are called object incorporation constructions in other Oceanic languages.

In Fijian and Polynesian languages reflexes of **akin[i]* function as anaphoric traces of oblique noun phrases which are expressed outside of the clause. As far as I know this function is restricted to these languages and thus is taken to be an innovation of them, developing from an earlier prepositional function.

Another apparent innovation of **akin[i]* in Fijian and Polynesian languages is its use in conjunction with the reciprocal prefix to indicate movement in various directions with motion verbs.

5.6 **AKIN[I]* AS A FREE OR BOUND FORM

The degree of phonological independence of Proto Oceanic **akin[i]* is not entirely clear. Pawley (1973) proposes that Proto Oceanic had a suffix **-aki[ni]* and a free form **kini-*, but Harrison (1982) suggests it is more plausible to reconstruct a single free form **akin[i]* for Proto Oceanic which has subsequently developed into a suffix[8]. However, as shown by Table 5.23 **akin[i]* is reflected as both a free form and a bound form in a number of modern Oceanic languages, including Woleaian, Bauan Fijian and Tongan, and thus the reconstruction of a similar situation for Proto Oceanic does not seem implausible. The situation is further complicated by the fact in some modern languages such as North-East Ambae, there appear to be two layers of suffixes reflecting **akin[i]*, one earlier and one later. Table 5.23 shows reflexes of **akin[i]* in modern Oceanic languages. The forms are divided into free forms and bound forms, and where it is not apparent from the orthography, a phonemic representation is also given.

[8] The plausibility of the reconstruction of a particular system concerning **akin[i]* needs to be firmly based on evidence from the modern languages, both Oceanic and non-Oceanic, not on the plausibility of the proto-system. While a single form in Proto Oceanic allows the reconstruction of a 'neat' proto-system it posits many parallel developments in the daughter languages.

Table 5.23: Oceanic reflexes of **akin[i]*

Language		**akin[i]* reflexes	
		bound forms	free forms
	Yapese	-eeg(ni) /ɛːɣni/	
Adm	Lou	-k	
NNG	Manam	-aʔ	
	Mangap-Mbula	-ki	
PT	Tawala	-ge	
	Saliba	-Cei	
	Mekeo	-ai	
MM	Teop		ki
	Kara	-ai	
	Tigak	-ai	
	Hoava	-(a)gi /aɣi/	
	Zabana	=ghini /ɣini/	
SES	Gela	-Cagi(ni) /aɣini/	
	Tolo		hinia
	Lengo	-Caɣini	ɣini-
	Longgu	-Caʔini	
	Kwaio	-Caʔi, -Ceʔeni-	
	Arosi	-Caʔi(ni)	
SO	N-E Ambae	-tagi(ni) /takini/	
		-gi(ni) /kini/	
	Tamambo		hini, hina /xini/, /xina/
Mic	Kosraean	-yuhk /yʌk/	
		-kihn /kɨn/	
	Mokilese	-ek	
		ki (semi-separable)	
	Ponapean	-ek	
		-ki, -kin, -kih /kiː/	
	Woleaian	-ag /axi/	yagili /yaxiri/
	Ulithian	-yex	yixili
		-xili	

Table 5.23 (cont)

Language		*akin[i] reflexes	
		bound forms	free forms
Fij	Bauan	-Caki, -Cakini	kina
	Boumaa	-Caʔina	ʔina
	Wayan	-Caki, Cakini-	kā, taki
Pn	Samoan	-Caʔi	aʔi
	Tongan	-Caki	ʔaki
		-ʔaki	

5.6.1 THEMATIC CONSONANTS

One of the crucial issues concerning the suffix or non-suffix status of Proto Oceanic **akin[i]* has to do with the way it is reflected in the daughter languages with respect to the thematic consonants. In many Oceanic languages original Proto Oceanic root-final consonants have been lost in environments where they occurred word-finally, but have been preserved in environments where the root was followed by a suffix. This is reflected particularly clearly with reflexes of the Proto Oceanic transitive suffix **-i*. For example, the Proto Oceanic verb root **taŋis* 'to cry' is reflected in Kwaio as *ani* 'to cry', where the final **s* of the Proto Oceanic verb has been lost. However, the transitive form of this verb is *ani-si-* 'to cry for s.o.'. In this form the original root-final consonant of Proto Oceanic has been retained because it was followed by the transitive suffix **-i*, and it has been reanalysed as part of the suffix. Thematic consonants before reflexes of **-i* were described briefly in Chapter 3, and Table 5.24 gives examples of modern forms with **-i* reflexes which take thematic consonants that regularly reflect the Proto Oceanic final consonants[9].

[9]Proto Oceanic **s* is retained as such in Tolo and Samoan and is regularly reflected as *s* before *i* in Lau and Arosi. In Wayan Fijian **s* is reflected as *c [ð]* and as *h* in Tongan, and medial **s* is reflected a *r* in Manam. Proto Oceanic **t* is reflected as *s* before *i* in Kosaean, as *j* in Mokilese, and is retained as *t* in Gela and Wayan Fijian.

Table 5.24: **-i* reflexes and thematic consonants

	intransitive	transitive with **-i*
To cry		
POc	*taŋis	*taŋis-i-
NNG: Manam	taŋi	taŋi-r-
SES: Arosi	aŋi	aŋi-si-
Pn: Samoan	taŋi	taŋi-si-
To drink		
POc	*inum	*inum-i-
Mic: Woleaian	iuḷiụ	iuliu-m-i
Fij: Boumaa	unu	unu-ma
Pn: Takuu	unu	unu-mi-
To pinch, pluck		
POc	*kinit	*kinit-i-
SES: Gela	ɣini	ɣini-ti-
Mic: Kosraean	kin	kini-s
Fij: Wayan	kini	kini-ti
To husk (coconut)		
POc	*kojom	*kojom-i-
NNG: Manam	ʔozo	ʔozo-m-i-
SES: Kwaio	'oto	'oto-mi-
Mic: Mokilese	kotkot	koto-m
To bury, plant		
POc	*tanum	*tanum-i-
NNG: Manam	tanu	tanu-m-i
SES: Kwaio	ano	ano-mi-
PN: Samoan	tanu	tanu-mi-
To twist		
PCEOc	*pilos	*pilos-i-
SES: Lau	filo	filo-si-
Fij: Wayan	vilo	vilo-ci
Pn: Tongan	filo	filo-hi-

When considering **akin[i]* this means that: a) if thematic consonants occur before its reflexes in a particular language then it must have been suffixed prior to the loss of

final consonants; and b) if thematic consonants never occur before **akin[i]* then it must have become a suffix after the loss of final consonants. The posited order of changes for both these hypotheses are demonstrated in Table 5.25 with the verb **taŋis* 'to cry'. Under (a) in Table 5.25 is the development of **akin[i]* as if it were originally a suffix, and under (b) the development of **akin[i]* as if it were originally a free form. Stage I shows the proposed original system under each hypothesis. Stage II shows the changes that the loss of word-final consonants would have had. Under (a) the final consonant would have been lost from the unmarked form of the verb, but retained before both **-i* and **akin[i]*. Under (b) the final consonant would have been lost from the unmarked form of the verb and from the verb when it was followed by **akin[i]*, but not from the form with **-i*. Stage III shows the subsequent suffixation of **akin[i]* under hypothesis (b). Stage IV gives the expected modern forms. Under (a), where **akin[i]* was originally a suffix, forms with **akin[i]* reflexes are expected to occur with thematic consonants, whereas under (b), where **akin[i]* was originally a free form, modern forms with its reflexes are expected to occur without thematic consonants.

Table 5.25: Development of **akin[i]* as a suffix and a free form with respect to thematic consonants

	a) **akin[i]* as a suffix	b) **akin[i]* as a free form
	*VERB-akin-i	*VERB akin-i
Stage I	*taŋis	*taŋis
	*taŋis-i-	*taŋis-i-
	*taŋis-akin-i	*taŋis akin-i
Stage II: loss of final	*taŋi	*taŋi
consonants	*taŋi-s-i-	*taŋi-s-i-
	*taŋi-s-aki-n-i	*taŋi aki-n-i
Stage III: suffixation of	_	*taŋi
**akin[i]* in b)		*taŋi-s-i
		*taŋi-aki-n-i
Stage IV: expected	*taŋi	*taŋi
modern forms	*taŋi-si	*taŋi-si-
	*taŋi-saki-ni	*taŋi-aki-ni

There is evidence from modern languages supporting both hypotheses. As noted in the previous chapter in a number of languages, including Manam, Motu, Longgu and Boumaa Fijian reflexes of **akin[i]* occur with thematic consonants, suggesting that **akin[i]* was a suffix before the loss of final consonants. But as described in section 5.2.2 in Micronesian languages there are reflexes of **akin[i]* before which thematic consonants do not occur, suggesting that **akin[i]* was not a suffix before the loss of final consonants. If, following Pawley (1973), both a suffix and a free form are reconstructed for Proto Oceanic, then those modern reflexes with thematic consonants can be seen as reflexes of the suffixed form and those reflexes without thematic consonants can be seen as reflexes of the free form. However, as Harrison (1982: 217) notes about Bauan Fijian, the thematic consonants with **akin[i]* often do not reflect the original Proto Oceanic final consonants, suggesting that the issue of thematic consonants with **akin[i]* reflexes involves more than simply that their presence indicates the suffix status of **akin[i]* and their absence free form status. This section looks more closely at the thematic consonants which occur with **akin[i]* reflexes in an attempt to find evidence to choose between the competing proposals concerning the degree of phonological independence of **akin[i]*.

5.6.1.1 THEMATIC CONSONANTS AND **AKIN[I]* REFLEXES IN SOUTHEAST SOLOMONIC LANGUAGES

As mentioned earlier, in a number of modern Oceanic languages reflexes of **akin[i]* appear to to behave in a manner parallel to reflexes of **-i*. That is, they occur as suffixes with initial thematic consonants, which seemingly reflect the original Proto Oceanic root-final consonants. To continue with the Southeast Solomonic example, Kwaio also has a reflex of Proto Oceanic **taŋis, ani-te'eni-* 'try to get sth by crying about it', where Proto Oceanic **s* is reflected as *t*, by a regular sound change. With this verb the original word-final consonant is preserved before the Kwaio reflex of **akin[i]*. Table 5.26 gives the reflexes of several reconstructed Proto Oceanic verbs in a number of Southeast Solomonic languages, demonstrating how the orginal Proto Oceanic stem-final consonant is retained as part of the reflex of **akin[i]*[10].

[10] In the Cristobal-Malaitan languages, a subgroup of Southeast Solomonic, Proto Oceanic **s* is reflected as *s* before the high vowels *i* and *u*, and as *t* elsewhere. Thus in languages like Longgu, Kwaio, Lau and Arosi what appear to be different thematic consonants before **-i* and **akin[i]* reflexes reflect a regular sound change, where **s* has become *t* before the **akin[i]* reflexes, but has remained as *s* before the **-i* reflexes. The regular reflex of Proto Oceanic **p* in Sa'a is *h* and the regular reflex of Proto Oceanic **s* in Gela is *h*.

Forms of the Proto Oceanic verbs are reconstructed with and without the transitive suffix *-*i*. Lexical items taking *-*i* are reasonably easy to reconstruct for Proto Oceanic as reflexes of lexical items with and without *-*i* can be be found in a wide range of languages. Reconstructing Proto Oceanic lexical items with and without **akin[i]* is much more difficult.

Table 5.26: Thematic consonants with **akin[i]* reflexes that reflect original final consonants in Southeast Solomonic languages

	intransitive form	form with *-*i*	form with **akin[i]*
Cry			
POc	*taŋis	*taŋis-i-	
Gela	taŋi	taŋi-hi-	taŋi-hagi
Kwaio	ani	ani-si-	ani-te'eni-
Arosi	aŋi	aŋi-si-	aŋi-ta'i
Enter bush, hunt			
POc	*silip	*silip-i-	
Sa'a	sili	sili-hi	sili-he'ini
Hit, kill			
POc	*Ra(b,p)us	*Ra(b,p)us-i-	
Longgu	_	rabu-si-	rabu-ta'ini-
Lau	rabu	rabu-si	rabu-tai-
Kwaio	labu	labu-si	labu-te'eni-
Bury, plant			
POc	*tanum	*tanum-i-	
Kwaio	ano	ano-mi-	ano-me'eni-
Twist			
PCEOc	*pilos	*pilos-i-	
Lau	filo	filo-si-	
Kwaio	_	filo-si-	filo-te'eni-
Arosi	hiro	hiro-si-	hiro-ta'i

Table 5.26 (cont)

	intransitive form	form with *-*i*	form with **akin[i]*
Squeeze, press			
PCEOc	*peles	*peles-i-	
Lau	fele	fele-si-	fele-taini-
Kwaio	fele	fele-si-	fele-te'eni-

However, it is not always the case that thematic consonants with **akin[i]* reflexes in Southeast Solomonic languages reflect the original final consonants. With other consonant-final verbs the thematic consonant which occurs as part of the reflex of **akin[i]* does not reflect the original final consonant, but an apparently innovative consonant occurs. Verbs of this type are given in Table 5.27. With the verbs in this table the forms taking *-*i* reflexes reflect the original final consonants, while those reflecting **akin[i]* occur with an "incorrect" consonant.

Table 5.27: Thematic consonants with **akin[i]* reflexes that do not reflect original final consonants in Southeast Solomonic languages

	intransitive form	form with *-*i*	form with **akin[i]*
Weave, plait			
POc	*patuR	patuR-i-	
Arosi	_	hau-ri	hau-ŋa'i
Look at			
POc	*tirop	*tirop-i-	
Kwaio	ilo	_	ilo-ŋe'eni-
Arosi	iro	iro-hi	iro-ŋa'i
Pierce			
POc	*susuk	*susuk-i-	
Kwaio	susu	susu-ʔi-	susu-le'eni
			susu-me'eni-
Arosi	susu	susu-ʔi-	susu-ra'i

Table 5.27 (cont)

intransitive form	form with *-*i*	form with **akin[i]*
Hit, kill		
POc	*Ra(b,p)us	*Ra(b,p)us-i-	
Arosi	rabu	rabu-si	(rabu-ta'i)
			rabu-ha'i
			rabu-ŋa'i

With some verbs in some of the Southeast Solomonic languages different reflexes of the suffix are used with the same verb stem. In Arosi there are three forms of the verb *rabu* 'strike' with *-Ca'i*, the reflex of **akin[i]*. The thematic consonant of the first form does in fact reflect the original final consonant, Proto Oceanic **s* is reflected in Arosi as *s* before *i* and *u*, and as *t* elsewhere. The other two forms of the suffix, *-ha'i* and *-ŋa'i*, have innovative thematic consonants. With these verbs in Arosi the forms with different allomorphs of *-Ca'i* have different meanings, as shown below, but with the Kwaio examples given below there is no apparent difference in meaning between the forms with different allmorphs of *-Ce'eni-*.

Arosi	rabu-ta'i	*to strike off, knock off with a stick*
	rabu-ha'i	*to strike*
	rabu-ŋa'i	*to strike, thrust downwards*
Kwaio	susu-le'eni-	*jab, inject, stick through*
	susu-me'eni-	*jab, inject, stick through*

(Fox 1978 and Keesing 1975)

Another case of "incorrect" thematic consonants with **akin[i]* reflexes in Southeast Solomonic languages is with verbs which are reconstructable as vowel-final forms for Proto Oceanic. With some such forms a thematic consonant has been inserted where one is not expected. For example, the Proto Oceanic verb stem **papi* 'to cook in an earth oven' occurs in Kwaio with the reflex of **akin[i]* as *fafi-te'eni-* 'to cook in a leaf oven', where the suffix has an initial *t* consonant. This consonant has to be innovative rather than a reflex of an earlier stem-final consonant as the verb originally did not have a final consonant. Interestingly, unlike the *-*i* reflexes in Southeast Solomonic languages, it seems that **akin[i]* reflexes always have a thematic consonant. Verbs of this type are given in Table 5.28.

Table 5.28: Addition of an unexpected thematic consonant before **akin[i]* reflexes in Southeast Solomonic languages

	intransitive form	transitive form	form with **akin[i]*
Cook in earth oven			
POc	*papi	*papi(-a)	
Kwaio	fafi	fafi(-a)	fafi-te'eni-
Buy, barter			
POc	*poli	*poli(-a)	
Arosi		hori	haʔa-hori-ŋa'i
Dry			
POc	*Raŋo	*Raŋo(-a)	
Arosi	raŋo	_	raŋo-ta'i

Thus thematic consonants with **akin[i]* reflexes in Southeast Solomonic languages are either: (i) reflexes of original stem-final consonants; (ii) innovative consonants which have replaced the expected ones; or (iii) innovative consonants which have been inserted where none is expected. Generally in Southeast Solomonic languages the **-i* reflexes, *-Ci*, appear to reflect the original Proto Oceanic final consonants more consistently than the **akin[i]* reflexes. This suggests that the thematic consonants with **akin[i]* reflexes in Southeast Solomonic languages are not simply the retention of original final consonants.

5.6.1.2 Explaining "incorrect" thematic consonants

There seem to be two explanations for the "incorrect" thematic consonants. First, it may be that **akin[i]* was originally a suffix and original final consonants were retained before its reflexes, but have subsequently been changed. Second, **akin[i]* may originally have not been a suffix, at least not with all verbs, and it has become a suffix at a later stage, at which time thematic consonants were inserted between the verb stem and **akin[i]*.

The first hypothesis is quite plausible. In the Fijian languages there are clear reflexes of *-*i* and **akin[i]* with "correct" thematic consonants. For example, the Proto Oceanic verb **taŋis* 'cry' is reflected in Wayan Fijian with the expected reflex of **s* occurring with both *-Ci* and *-Cakini*. However, there has also been a major reshuffling of the thematic consonants before *-*i*, and apparently **akin[i]*, hence reflexes in Fijian languages with many verbs occur with "incorrect" thematic consonants.

POc	*taŋis	*cry*
Wayan	tagi	*cry*
POc	*taŋis-i-	*cry for sth*
Wayan	tagi-ci-	*cry for sth*
	tagi-cakini	*cry over/because of sth*

Arms (1974: 103-130) notes that there are correlations between particular thematic consonants and semantic properties of verbs[11]. Thus with some verbs the historically "correct" thematic consonant has been replaced by an innovative one on the basis of the semantic properties of the verb. Arms (1974: 103-130) proposes the following semantic groupings with respect to the thematic consonants of the *-Ci* suffix:

a) *-c* [ð] 'pliancy, gentle contact, bodily experience'

bika-ci	*press down on*
boi-ci	*smell*
mira-ci	*fall gently on (dry things)*
moi-ci	*twist round, untwist*

b) *-k* 'hardness, force, opening out'

basu-ki	*burst, break open*
dresu-ki	*tear, rend*
natu-ki	*knead with mortar and pestle*
vida-ki	*split, cleave*

c) *-m* 'insertion, going inside'

ciqo-mi	*accept, receive, catch*
curu-mi	*enter*
dara-mi	*slip on or into (clothes, shoe)*
todrou-mi	*lap up, drink from stream or basin, cut from inside*

[11] Geraghty (1983: 267-269) suggests that Arms' (1974) claim is too strong, but agrees that certain groups of semantically related verbs occur with the same thematic consonant. Lichtenberk (1978) notes a similar situation in Manam where there is a tendency for particular thematic consonants to occur more frequently with verbs of certain types of meanings rather than with others.

d) *-r* 'location, posture, change of state'

cewa-ri	*sit on*
davo-ri	*lie on*
kisi-ri	*move from proper place*
sova-ri	*pour out*

e) *-v* 'motion to, motion for, motion over'

cudru-vi	*be angry at*
kara-vi	*propel a canoe with a pole to somewhere*
lade-vi	*jump over*
lako-vi	*go to or through*

With the *-Cakini* suffix Arms (1974: 115-116) states that the semantic correlations established for *-Ci* are frequently retained. However, there are also some additions: the forms *-laki* and *-raki* have an intensive meaning indicating that the action was carried out more thoroughly or was done repeatedly; and the form *-taki* has become a general verbalising suffix, and is used with nouns and adjectives and also with newly introduced words, such as English loans. Examples of these different functions are given in the following lists.

vacu-ki	*'punch'*	vacu-laki	*'punch repeatedly'*
dresu-ki	*'rip'*	dresu-laki	*'rip to shreds'*
butu-ki	*'tread on'*	butu-raki	*'stamp on, kick repeatedly'*

(Geraghty 1983: 269)

kutari	*'hoe'*	kutari-taki	*'to hoe'*
mata	*'representative'*	mata-taki	*'to represent s.o.'*
wai	*'water'*	wai-taki	*'let water go into (taro beds)'*

(Arms 1974: 119)

lisi-taki	*'to lease'*	(< English 'lease')
ripea-taki	*'to repair'*	(< English 'repair')

(Arms 1974: 120)

However, in Southeast Solomonic languages by and large the thematic consonants with *-Ci* reflect original stem final consonants. So a reshuffling of thematic consonants, if it did occur, must have been restricted to **akin[i]* reflexes.

5.6.1.3 How often do **akin[i]* reflexes comprise the "correct" thematic consonant?

The second hypothesis is that **akin[i]* was not a suffix originally, at least not with all verbs. Such an hypothesis can be tested using two methods which might be termed 'top-down' and 'bottom-up' approaches. The first is to look at reflexes of previously reconstructed Proto Oceanic verbs where the original final consonant is known and see with how many and how widespread are the reflexes where the original final consonant has been retained before an **akin[i]* reflex. With verbs where the original final consonant has been retained before **akin[i]* reflexes in languages from different subgroups then it can be hypothesised that **akin[i]* was indeed a suffix before the loss of final consonants, and thus in Proto Oceanic. Such a search revealed two verbs where the original final consonant is retained before **akin[i]* in different subgroups. One is **taŋis* 'cry' and the other **tanum* 'bury, plant'. With **taŋis* 'cry' a reconstruction with suffixed **akin[i]*, **taŋis-akin[i]* 'cry about, mourn' can be reconstructed for Proto Oceanic as modern reflexes with the "correct" consonant are found in several Central/Eastern Oceanic languages from the Southeast Solomons, Fiji and Polynesia, and in Manam, a Western Oceanic language. With **tanum* 'bury' it is possible that a form with a suffixed **akin[i]* is reconstructable, but so far I have found only Central/Eastern Oceanic reflexes. Another possible candidate is the tentative Proto Central/Eastern Oceanic reconstruction **gaʀup* 'swim', for which a form with **-i* and form with **-akini* can be reconstructed on the basis of the same thematic consonants occurring before their reflexes in several modern languages, suggesting that it may reflect an original stem-final consonant[12].

[12] The sound correspondences of the thematic consonants in Table 5.29 are regular. Thus Proto Oceanic **s* is retained as such in Samoan and in this environment (before *i*) in Kwaio and Arosi, whereas in Gela it is regularly reflected as *h*. In Bauan and Wayan Fijian Proto Oceanic **s* is reflected as *ð* and in Manam **s* becomes *r* in medial position. Proto Oceanic **m* is retained as such in Manam, Kwaio, Tongan and Samoan, and Proto Oceanic **p* is reflected as *h* in Sa'a and Arosi, as *v* in Bauan Fijian and as *f* in Tongan.

Table 5.29: Reflexes of **akin[i]* with the "correct" thematic consonant

		root form	form with **-i*	form with **akin[i]*
Cry				
	POc	*taŋis	*taŋis-i-	*taŋis-akin[i]-
NNG	Manam	taŋ	taŋi-r-	taŋi-r-a?-
SES	Gela	taŋi	taŋi-hi-	taŋi-hagi
	Kwaio	ani	ani-si-	ani-te'eni-
	Arosi	aŋi	aŋi-si-	aŋi-ta'i
Fij	Bauan	taŋi	taŋi-ða	taŋi-ðaka
	Wayan	taŋi	taŋi-ði-	taŋi-ðakini-
Pn	Samoan	taŋi-	taŋi-si-	taŋi-sa'i
Bury, plant				
	POc	*tanum	*tanum-i-	
NNG	Manam	tano	tano-m-i	_
SES	Kwaio	ano	ano-mi-	ano-me'eni-
Pn	Tongan	tanu		tanu-maki
	Samoan	tanu	tanu-mi-	tanu-ma'i
Swim				
	PCEOc	*gaRup	*gaRup-i-	*gaRup-akini-
SES	Arosi	_	_	'aro-ha'i
	Sa'a	olo, oloolo	olo-hi	olo-ha'ini
NCV	Mota	garu	garu-vi	garu-vag
Fij	Bauan	qalo	qalo-va	qalo-vaka
	Wayan	qua	qua-vi	_
Pn	Tongan	kaukau	_	kau-faki

The second approach also involves looking at the thematic consonants which occur before **akin[i]* reflexes in modern languages, but this time with forms where there is no established Proto Oceanic reconstruction of the verb. Without Proto Oceanic reconstructions how can it be determined which verbs might reflect original final consonants before **akin[i]*? A reasonable working hypothesis seems to be that those verbs with which both **-i* and **akin[i]* reflexes occur with the same thematic consonant are more likely to be the ones where the consonant reflects the original final consonant[13].

[13] Harrison (1982: 217) reports that with Arms' (1974) sample of Fijian verbs 66% have different thematic consonants with *-Ci* and *-Caki*, but I haven't looked at Arms' study in detail.

In Southeast Solomonic languages at least, it seems to be the case that the thematic consonant with *-*i* suffix mostly reflects an original final consonant. But how often does the thematic consonant with an *-*i* reflex and the thematic consonant with an **akin[i]* reflex correspond, and is there a core of verbs where the thematic consonant with **akin[i]* reflexes look like they reflect original word-final consonants? A survey of the Gela dictionary (Fox 1955) and about a quarter of the Arosi dictionary (Fox 1978) reveals three groups of verbs with **akin[i]* reflexes:

a) verbs where *-*i* and **akin[i]* reflect the same thematic consonant;
b) verbs where *-*i* and **akin[i]* reflect different thematic consonants; and
c) verbs where *-*i* is not reflected, but **akin[i]* with a thematic consonant is.

The third group of forms, while comprising the largest number of forms in both Gela and Arosi, with 219 and 140 forms, respectively, provides no relevant evidence for the present hypothesis.

Table 5.30 gives the number of verbs (and a percentage) for the two former groups, where the verbs have both *-*i* and **akin[i]* forms. In Gela 67 of the 119 verbs, or 56.3%, have the same thematic consonant with both *-Ci* and *-Cagi*, and 52 of the 119 verbs, or 43.7%, have different thematic consonants with *-Ci* and *-Cagi*. In Arosi it is the other way around, with 122 of the 201 verbs, or 60.7%, having different thematic consonants with *-Ci* and *-Ca'i*, and 79 of the 201 verbs, or 39.3%, having the same thematic consonant with *-Ci* and *-Ca'i*[14].

[14] Thematic consonants before *-*i* and **akin[i]* reflexes are counted as the same if they reflect the same proto-phoneme. For example, the suffixes *-si* and *-ta'i* in Arosi are considered to have the same thematic consonant as both reflect Proto Oceanic **s*. In Arosi, Proto Oceanic **s* is reflected as *s* before the high vowels *i* and *u* and as *t* elsewhere. Also Arosi *t* does not reflect Proto Oceanic *t* which is lost.

Table 5.30: Thematic consonants with **-i* and **akin[i]* reflexes in Gela and Arosi

	Gela		Arosi	
a) same thematic consonant with **-i* and **akin[i]*	67	56.3%	79	39.3%
b) different thematic consonant with **-i* and **akin[i]*	52	43.7%	122	60.7%
total number of verbs	119	100%	201	100%

How many of these verbs are cognate across the Southeast Solomonic languages? Of the Gela verbs where the thematic consonant of **-i* and **akin[i]* are the same (that is 67 verbs) I have found cognates in other Southeast Solomonic languages for 20 of them. Of these:

a) 8 verbs have cognates in other Southeast Solomonic languages reflecting the same thematic consonant before **akin[i]*, though not always with **-i*;
b) 5 verbs have cognates in other Southeast Solomonic languages with **akin[i]*, but reflecting a different thematic consonant; and
c) 7 verbs have cognates in other languages, but with no **akin[i]* forms given in the dictionaries.

Table 5.31 gives these Gela verbs and their cognates in other Southeast Solomonic languages[15].

[15] Glosses for the verbs in Table 5.31 are given as they were in the source.

Table 5.31: Southeast Solomonic verbs with **akin[i]*

a) verbs reflecting the same thematic consonant before **akin[i]*				**8/20**
Gela	siki-li	*poke out, pluck out, tickle tr*	siki-lagi	*vb caus*
Arosi	sigi-ri	*to poke out dirt*	sigi-ra'i	*to poke out dirt*
Gela	sipa-li	*pull out, unsheath, poke out tr*	sipa-lagi	*vb caus*
Kwaio	sifi-a	*poke w/ a stick, poke down*	sifi-le'e-ni-a	*poke*
Gela	oli-vi	*return to, come back upon tr*	oli-vagi	*caus. bring back, cause to return*
Kwaio	oli-a	*turn back, send away*	oli-fe'eni	*return (tr.), put back together*
			(oli-te'eni)	*(put, send back)*
Gela	susu-vi	*drink from breasts tr*	susu-vagi	*vb caus*
Lau	susu-fi	*suckle*	susu-faini	*to suckle*
Gela	siki-ri	*splash, spot tr*	siki-ragi	*vb caus*
Kwaio	sigi-fi	*splash, spray or knock towards*	sigi-le'eni	*splash, spray at, flick at*
Gela	taŋi-hi	*to cry for*	taŋi-hagi	*vb caus*
Kwaio	ani-si	*cry for, cause to cry out*	ani-te'eni-	*try to get sth by crying about it*
Arosi	aŋi-si	*to cry for*	aŋi-ta'i	*cry out at, wonder at*

Table 5.31 (cont)

Gela	lapo-si	*leap from one th. to another (fire)*	lapo-sagi	*vb caus*
Kwaio	lofo-ʔi	*seize and fly off with*	lofo-te'eni	*carry away flying*
Gela	sono-mi	*to swallow tr*	sono-magi	*cause to swallow or be swallowed, act of swallowing*
Kwaio	ono-mi	*swallow*	ono-me'eni	*swallow tr*
(b) verbs reflecting a different thematic consonant				**5/20**
Gela	aŋgo-vi	*crawl upon*	aŋgo-vagi	*make vine go 'round stick etc*
Longgu	aŋo-vi	*crawl to (it)*	aŋo-ta'ini	*crawl with (it)*
Kwaio	aŋo-fi	*creep towards sth, stalk*	_	
Gela	taŋgu-li	*crawl, creep over (as parasite) tr*	taŋgu-lagi	*vb caus. make a plant climb*
Arosi	agu-ri agu-ni	*tr. to climb on, twine around*	agu-ŋa'i	*to festoon, encirlce w/ creepers*
Gela	ŋgele-hi (ŋgele-mi)	*to look out of window vb tr*	ŋgele-hagi (ŋgele-magi)	*vb caus*
Lau	kela-si	*examine*	kela-taini	*examine*
Gela	rogo-vi	*tr. to bend over etc*	rogo-vagi (rogo-lagi)	*vb caus bow, bend*
Arosi	ro'u-mi ro'u-ni	*bend, fold tr.*	ro'u-ŋa'i	*to bend, fold intr.*
Gela	tapa-li	*to run to tr*	tapa-lagi	*vb caus*
Arosi	aa-mi aa-hi	*to run to, from, about on*	aa-ta'i	*to run about*

Table 5.31 (cont)

c) verbs with no *akin[i] forms				7/20
Gela	eno-li	*to lie down tr*	eno-lagi	*make lie down*
Arosi	eno-hi	*to rest on tr*	_	
Gela	ndaŋa-li	*vb tr to fill full*	ndaŋa-lagi	*vb caus. cause to be full, fill*
Kwaio	deŋe-a	*fill up*	_	
Gela	vaŋga-li	*to split from heat tr*	vaŋga-lagi	*vb caus*
Lau	foga-li	*tr. split, rend, burst*	_	
Gela	viha-li	*to thunder*	viha-lagi	*vb caus*
Kwaio	fita-li	*thunder, damage w/ thunder*	_	
Gela	ndalo	*rinse in water; smooth out, iron; rub on lime or ashes*	ndalo-vagi	*vb caus*
	ndalo-vi	*vb tr*		
Lau	dalo-fi	*rub, massage*	_	
Gela	ndila-vi	*to fail, miss tr*	ndila-vagi	*vb caus*
Arosi	dira-hi dira-'i	*fail in, miss, do in vain*	_	
Gela	sara-vi	*arrive at, go ashore*	sara-vagi	*vb caus. to go ashore, be drifted ashore*
Lau	tara	*crawl out of water, go ashore*	_	

(data from Fox 1955, Fox 1978, Keesing 1975, Fox 1974 and Hill 1992)

It is the verbs which are included in section (a) of Table 5.31 which are possible candidates for verbs with which **akin[i]* has long been suffixed. Naturally enough one of these verbs is **taŋis* 'cry', already mentioned as being reconstructable with a suffixed **akin[i]* for Proto Oceanic.

The Gela form *sono-mi* 'swallow' and the Kwaio form *ono-mi* 'swallow' have cognates outside of Southeast Solomonic. Proto Oceanic forms **to[n,d]om* 'swallow' and **to[n,d]om-i-* 'swallow sth' can be reconstructed[16]. This then is a verb where both Gela and Kwaio have forms with **akin[i]* reflexes where the thematic consonant reflects the original Proto Oceanic stem-final consonant. As far as I know reflexes of **to[n,d]om* with **akin[i]* are not found outside of Southeast Solomonic. On the basis of the Gela and Kwaio forms it seems likely that in Proto Southeast Solomonic **to[n,d]o* took **akin[i]* as suffix[17]. The "correct" thematic consonant may have been inserted by analogy with the **-i* form. What the meaning of Proto Southeast Solomonic **to[n,d]o-maki[ni]* was is not clear from the Gela and Kwaio reflexes. In Gela *sono-magi* has a causative meaning, 'cause to swallow', whereas from the translation given for Kwaio *ono-me'eni-* 'to swallow TR', it is not clear how this form differs from *ono-mi-* 'to swallow TR'. It is of course possible that **akin[i]* was a suffix with **to[n,d]om* 'swallow' much earlier in its history, perhaps even in Proto Oceanic times, and that the thematic consonant with **akin[i]* reflexes is a retention of the original stem-final consonant. But without any non-Southeast Solomonic evidence such a situation cannot be reconstructed.

With one verb in Table 5.31 the thematic consonant, reconstructable before both **-i* and **akin[i]*, is an innovation of Proto Southeast Solomonic. Gela and Lau suggest the reconstruction of Proto Southeast Solomonic **susu-vi* 'suckle' and **susu-vagi* 'suckle'. Again it is not clear what the difference between these two forms was. In Lau both reflexes are given the same translations and in Gela the form with *-Cagi* has a causative meaning. The Proto Oceanic antecedent of these forms is **susu-* 'suckle', with no final consonant. What must have happened here is that a thematic consonant has been inserted before the **-i* and **akin[i]* forms of these verbs in pre-Proto Southeast Solomonic. The fact that Proto Southeast Solomonic **v* or its cognates are not found as the thematic consonant with reflexes of **susu-* 'suckle' in other Oceanic languages or occurring following **susu* cognates in non-Oceanic languages suggests that this thematic consonant is an innovation of Proto Southeast Solomonic.

The first verb under section (b) of Table 5.31 is also interesting. Here it is possible to reconstruct for Proto Southeast Solomonic a form with **-i*, thus **a(g,ŋ)o-vi* 'crawl'[18]. In Gela the same thematic consonant occurs with the **akin[i]* form. However,

[16] The Gela form shows an irregular change in the form of the initial consonant. Appendix B gives a more detailed cognate set for these forms.

[17] Final consonants had been lost at some stage earlier than Proto Southeast Solomonic, and so **to[n,d]o* 'swallow' is reconstructed without the final **m*.

[18] The irregularities in the stem medial consonant are that Gela reflects Proto Oceanic **g* and Longgu and Arosi reflect Proto Oceanic **ŋ*.

in Longgu the **akin[i]* form has a different thematic consonant. In Longgu the thematic consonants that occur with *-Ca'ini-*, the reflex of **akin[i]*, are *t* and *r*, and do not correspond to the thematic consonants of *-Ci* (Hill 1992: 57). Thus Longgu provides no evidence for the nature of thematic consonants with **akin[i]* reflexes as they have been generalised to a large extent. The apparently "correct" thematic consonant with the Gela form may reflect an original stem-final consonant or it may be the result of analogy with the form with *-Ci*. Again the functions of the **akin[i]* reflexes are different. In Gela *-Cagi* has a causative function with *aŋgo* 'crawl' and in Longgu *-Ca'ini-* allows the addition of an O argument with the role of concomitant.

A similar survey was done of **akin[i]* forms in Micronesian languages, although here the reflexes of **akin[i]* which have thematic consonants are the detransitivising suffixes. A search of the Woleaian dictionary revealed 52 verbs which take the reflex of Proto Oceanic **aki*, the passive suffix *-ag* [-axi]. Unlike in Gela and Arosi, the majority of the verbs with *-ag* occur with the same thematic consonant with *-ag* and transitive suffix *-i*. Verbs with *-ag* in Woleaian can be divided into 5 groups:

(a) those that have the same thematic consonant with *-i* and *-ag*;
(b) those that have different thematic consonants with *-i* and *-ag*;
(c) those where there is no thematic consonant with *-i*, but one with *-ag*;
(d) that which has no thematic consonant with *-ag*; and
(e) forms with *-ag*, but with no *-i* transitive form.

Again this last group provides no evidence for comparison of thematic consonants and will not be included. Unlike in Southeast Solomonic languages, Woleaian has one *-ag* form that has no thematic consonant. Table 5.32 gives the numbers of verbs (and percentages) in each of the four groups.

Table 5.32: Thematic consonants with *-i* and *-ag* in Woleaian

(a) the same thematic consonant with *-i* and *-ag*	38	76%
(b) different thematic consonants with *-i* and *-ag*	5	10%
(c) no thematic consonant with *-i*, but one with *-ag*	6	12%
(d) no thematic consonant with *-ag*	1	2%
total number of verbs	50	100%

How many of the Woleaian verbs which take the same thematic consonant with *-i* and *-ag* have cognates in other Micronesian languages? So far I have found cognates for 16 of the 38 verbs. These verbs and their cognates are given in Table 5.33, with both the orthographic and phonemic representation. They can be divided into four groups:

a) those which have cognates in other Micronesian languages with the same thematic consonant before the **aki* reflex;
b) those which have cognates in other Micronesian languages, but where only Woleaian has an **aki* form;
c) that where **aki* forms were found in a number of languages, but with different thematic consonants; and
d) that where the Woleaian thematic consonant is different from the thematic consonant in other languages with the transitive forms.

Table 5.33: Micronesian cognates of Woleaian verbs that take *-i* and *-ag* with the same thematic consonant[19]

(a) *aki plus thematic consonant reconstructable for a subgroup of Micronesian				**8/16**
WOL	beli-beli	ɸeri-ɸeri	*to snap off, break off*	VN
	beli-ng-agi	ɸeri-ŋ-exi	*to be snapped off, fall off the main body*	VI(PASS)
	beli-ng-ii	ɸeri-ŋ-i̇	*snap it off, break it off*	VT
TRK	pwúún	pʷi̇n	*be broken*	
MKL	pwal	pʷal	*broken, split*	VI
	pwalang	pʷala-ŋ	*to break, split*	VT
PLP	pwal	pʷal	*to split, have an operation*	VI
	pwælangæk	pʷɛla-ŋ-ɛk	*to split (a coconut)*	VI
	pwælang	pʷɛla-ŋ	*to split (a coconut)*	VT
MSH	bōl̦ñak	bʷəlʷ-ŋ-ɑk	*split open, spread legs wide open*	
KSR	falfal	falfal	*split, saw lengthwise*	VI
	fuhluhng	fʌlʌ-ŋ	*split*	VT

[19] The abbreviations and sources of data are: WOL: Woleaian (Sohn & Tawerilmang 1976), CRL: Carolinian (Jackson & Marck 1991), PUL: Puluwat (Elbert 1972), TRK: Chuuk (Trukic) (Goodenough & Sugita 1980, 1990), MKL: Mokilese (Harrison 1977), PON: Ponapean (Rehg & Sohl 1979), PLP: Pingilapese (Good and Welley 1989), MSH: Marshallese (Abo et.al. 1976), KIR: Kiribatese (Gilbertese) (Sabatier 1971), and KSR: Kosraean (Kusaiean) (Lee 1976).

Table 5.33 (cont)

WOL	wegi	wexi	*to turn over, be converted*	VN
	wegi-t-agi	wexi-t-exi	*to turn around, be turned over*	VI(PASS)
	wegi-t-ii	wexi-t-ī	*turn it, change it, transfer it, convert it*	VT
CRL	wogho-wogh	woxo-wox	*to turn food when cooking*	VI
	woghe-t-ágh	woxe-t-æx	*to turn and face in opposite direction, face backwards*	VI
	weghe-t-i	wexe-t-i	*to flip sth over*	VT
MKL	ukudek	uku-t-ɛk	*turned*	VI
	ukud	uku-t	*to try to turn over*	VT
PON	wikidek	wiki-t-ek	*to turn, in direction*	VI
	wikid	wiki-t	*turn over, change (opinion)*	VT
PLP	wekedæk	weke-t-ɛk	*to turn sth over*	VI
	wekid	weki-t	*to turn sth over*	VT
MSH	ukok	ukok	*change, translate*	VI
	ukoktak	ukok-t-ɑk	*alternate, fluctuate, changing continually*	
	ukot, ukōj, ukōt	uko-t, ukə-c, ukə-t		VT
KSR	ek	ek	*turn (over)*	VI
	ekas	eka-s	*uncover, reveal, turn over, dig out*	VT
WOL	geo	xø	*fish hook*	N
	geo-t-agi	xø-t-axi	*to be hooked, connected, pierced with a hook*	VI(PASS)
	geo-s-ii	xø-s-ī	*hook it, connect it by a fish hook, pierce with a hook*	VT
CRL	ghéé	xē	*fish hook*	N
	ghééy	xē-y	*to hook it (fish)*	VT
TRK	éé	ə̄	*fish hook*	N
	ééyi	ə̄-yi	*hook sth on a fish hook*	VT
MKL	koahj	kɔ̄c	*barb*	N
	koahjdi	kɔ̄c-t-i	*caught on a barb*	VI

Table 5.33 (cont)

PON	kehs	kēs	*hook*	N
	kehse	kēs-e	*to hook*	VT
MSH	kōāj	kəæc	*hook, barb*	N
	kojek	kɒc-ek	*caught on a hook, get hooked*	
KSR	ka	ka	*fish hook*	N
	kai	ka-i	*catch with a hook, hook*	VT
WOL	pile-pile	pɪre-pɪrẹ	*n. stopper, plug; vi. to be closed*	N; VI
	pile-t-agi	pɪre-t-axi	*to be closed, shut*	VI(PASS)
	pile-s-ii	pɪre-s-ī	*close it, shut it (off)*	VT
	piletaa	pɪrerā		
CRL	pile-s-agh	pile-s-ax	*to become blocked, to be patched*	VI(PASS)
	pileey	pilē-y	*to close, cover up, put lid on sth*	VT
PUL	pinááy	pinǣ-y	*to prevent, stop*	V
TRK	pinepin	pine-pin pɪre-pin	*to be stopped up, corked, blocked*	VI
	pineey	pinē-y	*plug up (hole), contradict (talk)*	VT
MKL	pin	pin	*cover, stopper*	N
	pinapin	pina-pin	*to cover, fill a hole*	VI
	pina pinahla/di	pina	*to cover, fill a hole*	VT
PON	pinapin	pina-pin	*to be patched, blocked, sealed; stoppered*	VI; N
	pina	pina	*to patch, block, seal*	VT
MSH	penjak	penc-ak	*covered, out of sight, sth in one's way or place*	
	pinej	pinec	*hide, obstruct, cover*	
KSR	fohnfohn	fɔn-fɔn	*substituting, jammed, blocked*	VI
	fonos	fono-s	*block, jam, obstruct, stop, fill in*	VT

Table 5.33 (cont)

WOL	tattala	te-ttaɾa	*to be free, solved, untangled*	VN
	tala-t-agi	taɾe-t-axi	*to be untangled, free, solved, liberated*	VI(PASS)
	tala-t-ii	teɾa-t-ī	*untangle it, free it, solve it*	VT
CRL	sálitágh	sælit-æx	*to be loosened, untied*	VI(PASS)
PUL	háletiy	hæleti-y	*to untie, disentangle*	V(I)
TRK	seneti	seneti seɾeti	*to untie, loosen*	VT
MKL	jaladek	calat-ɛk	*to release, untie, free, to be one's own boss*	VI
	jalad	calat	*to release, untie*	VT
MSH	jaļjaļ	cal^{w}-cal^{w}	*loosen, unwind, unsnarl, take apart*	
	jeļati	cel^{w}a-ti		VT
KSR	taltal	tal-tal	*untie, loosen*	VI
	tuhla	tʌla	*untie, spread out*	VT
WOL	suu-suu	sū-sū	*to open, disclose*	VN
	suu-g-agi	sū-x-axi	*to be opened, disclosed*	VI(PASS)
	suu-g-ii	sū-x-ī	*open it, disclose it*	VT
CRL	suusu	sū-su	*to be opening sth*	VI
	suugh	sū-x	*to be open*	VI
	suughágh	sū-x-æx	*to be opened*	VI(PASS)
	suughi	sū-x-i	*to open sth*	VT
TRK	ssuuk	ssūk	*be open, opened*	VI/ADJ
	suuki	sūk-i	*open*	VT
KIR	uki	uki	*an opening*	N
	kauka	ka-uk-a	*to open, disclose*	VT(CAUS)

Table 5.33 (cont)

WOL	mweiumweiu	mʷeʉ-mʷeʉ	*to break (away from), divorce, take a child away from mother for first time*	VN
	mweiutagi	mʷeʉ-t-exi	*to be broken, taken away (as child from mother)*	VI(PASS)
	mweiutii	mʷeʉ-t-ī	*break it, disconnect it, take him away from his mother for the first time, cut it off, snap it off*	VT
CRL	mmwey	mʷmʷey	*to be broken, snapped, parted*	VI
	mweiti	mʷei-ti	*to break sth, part, snap it*	VT
TRK	mwúú	mʷī	*be severed, broken apart*	VI/ADJ
	mwúúti	mʷī-ti	*break apart*	VT
MKL	mwei	mʷɛi	*snapped, divorced*	VI
	mweidek	mʷɛi-t-ɛk	*snapped, divorced*	VI(PASS)
	mweid	mʷɛi-t	*to snap*	VT
PLP	mweidek	mʷei-t-ek	*to let go, break a binding on s.o.*	VI
	mweid	mʷei-t	*to let go, break a binding on s.o.*	VT
WOL	fiya-fiya	fiye-fiya	*to squeeze, press, wring, extract*	VN
	fiyangagi	fiye-ŋ-axi	*to be squeezed, pressed, wrung, extracted*	VI(PASS)
	fiyangii	fiye-ŋ-ī	*squeeze it, press it, wring it, extract it*	VT
	fiya-a	fiyā	*squeeze it*	VT
CRL	feingegh	fei-ŋ-ex	*to be squeezed, pressed*	VI(PASS)
	feingi	fie-ŋ-i	*to press, push hard on, squeeze*	VT
TRK	fi (fiya)	fi	*to be squeezed, be pressed*	VI/ADJ
	fiyeey	fiy-ēy	*squeeze, press between fingers, strangle*	VT

Table 5.33 (cont)

(b) *aki form found only in Woleaian				**6/16**
WOL	bugobugo	ɸuxo-ɸuxo	*to tie, bind, fasten, connect, make knots of*	VN
	bugotagi	ɸuxo-t-axi	*to be tied, connected, fastened, bound*	VI(PASS)
	bugosii	ɸuxo-s-ī	*tie it, connect it, make knots of it*	VT
CRL	bwughobwugh	bʷuxo-bʷux	*knot; to tie knots*	N; VI
	bwughéé	bʷuxə̄-y	*to tie a knot*	VT
PUL	pukopuk	puko-puk	*knot*	N
	pukoy	puko-y	*to tie, knot*	VT
TRK	pwuka-	pʷuka-	*knot*	N
	pwukeey	pʷukē-y	*tie sth in a knot*	VT
PON	pwukopwuk	pʷuko-pʷuk	*knot, to knot*	N; VI
	pwuke	pʷuk-e	*to knot*	VT
MSH	bobo	bʷo-bʷo	*assemble, fit together, braid, tie*	
	booj	bʷō-c		VT
KSR	foko	foko	*knot, protruding part*	N
	fokoi	foko-i	*tie, fasten a knot, make a knot*	VT
WOL	mwulomwulo	mʷuro-mʷuɾ	*to crumple, crumpled, wrinkled, rumple*	VI/ADJ
	mwulotagi	mʷuro-t-axi	*to be crumpled, wrinkled, rumpled*	VI(PASS)
	mwulotii	mʷuro-t-ī	*crumple it, wrinkle it, rumple it*	VT
CRL	mwuliti	mʷuliti	*to rub back & forth, as to crumple leaves, to roll two pieces of rope together*	VT
KSR	olo	olo	*wrinkle, crease; become wrinkled, crumpled*	N; VI
	oloi	olo-i	*wrinkle, crunple*	VT
KIR	mino	mino	*embroiled, entangled, twisted*	VI
	kaminoa	ka-mino-a	*to make entagled etc*	VT
	minota	mino-ta	*to turn a handle*	VT

Table 5.33 (cont)

WOL	paa-paa	pā-pā	*to count, number, calculate, take a count of*	VN
	paangagi	pā-ŋ-axi	*to be counted, numbered, calculated*	VI(PASS)
	paangii	pā-ŋ-ii	*count, number, calculate it*	VT
CRL	páápá	pǣ-pæ	*to count*	VI
	páángi	pǣ-ŋ-i	*to count*	VT
PUL	paapa	pā-pa	*to count*	V
	pááng	pǣ-ŋ	*to read, count, speak*	V
	páángiy	pǣ-ŋ-iy		
WOL	shou	ʂou	*to capture, scoop (w/ a scooping net)*	VN
	shougagi	ʂou-x-exi	*to be captured, seized by force, scooped*	VI(PASS)
	shougii	ʂou-x-ī	*capture it, scoop it, seize it*	VT
CRL	schééw	ʂə̄w	*dipping net, seine net, fine mesh net*	N
	schoow	ʂō̄w		
	schooghi	ʂō-x-i	*to dip up small fish with a seine net*	VT
TRK	cheew	ʈˢē̄w	*fish net*	N
WOL	tilengagi	tiɾe-ŋ-axi	*to be opened, split, cracked*	VI(PASS)
	tilengii	tiɾe-ŋ-ī	*open it, split it, crack it*	VT
CRL	tili	tili	*to push brush, other obstacles out of the way when going through forest*	VI
	tilingi	tili-ŋ-i	*to split, separate into halves, to cut open*	VT
PUL	tilángiy	tilæŋiy	*to cut open, split*	VT
TRK	tin	tin	*be chopped lengthwise, be separated, split*	VI
	tinetin	tine-tin tiɾe-tin	*chop lengthwise; separate, split*	VA

Table 5.33 (cont)

WOL	wau	wau	*to hit, strike, give a blow to, hunt*	VN
	wautagi	wau-t-exi	*to be hit, spanked*	VI(PASS)
	wautii	wau-t-ī	*hit him, spank him*	VT
TRK	awa-	awa-	*beat, strike*	
	awata	awa-ta	*strike, beat, smite, slay*	VT
(c) different thematic consonants in different languages				**1/16**
WOL	taragagi	taʐe-x-axi	*to be pulled up, peeled back, raised up*	VI(PASS)
	taragii	teʐa-x-î	*pull it up, move it, lift it up, take it apart*	VT
CRL	tááringegh	tǣri-ŋ-ex	*to be torn, ripped*	VI(PASS)
	tááringiiy	tǣri-ŋī-y	*to tear, rip sth*	VT
TRK	ttááring	ttǣri-ŋ	*be torn; tear*	ADJ; VI
	tááringeey	tǣri-ŋ-ē̄y	*tear (clothing)*	VT
MKL	soasoa	sɔsɔ	*to tear*	VI
	soahroak	sɔ̄rɔ-k	*torn*	VI
	soahr	sɔ̄r	*to tear*	VT
PON	tei	tei	*to be torn*	VI
	teirek	tei-r-ek	*to be torn, worn out*	ADJ
	tehr	tē̄-r	*to tear, criticise*	VT
MSH	jar	cɑr	*split, torn off*	
	kōjar	kə-cɑr		VT
KSR	sisac	siɛ	*tear, rip, rend*	VI
	se	se	*tear, shred, rip, rend*	VT
	mihsac	mɨ-sɛ	*tears, rips in cloth; torn*	N; VI

Table 5.33 (cont)

(d) different thematic consonants in Woleaian than in other languages				**1/16**
WOL	shoa-shoa	ʂɔ- ʂɔ	*to press, give a massage to*	VN
	shoangagi	ʂɔ-ŋ-axi	*to be pressed, flattened, squeezed*	VI(PASS)
	shoangii	ʂɔ-ŋ-ī	*press it, give massage to him*	VT
	shoashoa-a	ʂɔ- ʂɔw	*give a massage to him, press it*	VT
CRL	schéésché	ʂə̄-sᵊ	*massage, to perform massage*	N, VI
	schééghi	ʂə̄-x-i	*to massage*	VT
PUL	réére	rə̄rə	*to massage*	VN
	réérée	rə̄rə̄	*to massage*	V(I)
	rééréékiy	rə̄rə̄-k-iy		

The first group of verbs, (a), comprises half the verbs (8 out of 16). With most of the verbs under (a) a form with **-i* can be reconstructed for Proto Micronesian, but with none of this group did a form with **aki* appear to be reconstructable for Proto Micronesian. However, a form with **aki* and a thematic consonant can be reconstructed for some lower level subgroups of Micronesian. For example, with the first set of cognates under (a) a Proto Micronesian form **p^{w}ala-ŋ-i* 'to break, split' can be reconstructed and a form **p^{w}ala-ŋ-aki* 'to be broken, split' can be reconstructed for Proto Western Micronesian. All the other verbs under (a), except two, reflect the same situation. The exceptions to this are the last two sets of verbs under (a), where reconstructions can be made only to the levels of Proto Trukic-Ponapeic and Proto Nuclear Trukic. The forms in the second group, (b), support the reconstruction of the thematic consonant with **-i* to either Proto Micronesian or Proto Nuclear Trukic and this same consonant is reflected in the Woleaian form with *-ag*. However, **aki* forms were not found in other languages. The third and fourth groups contain only one verb each. In (c) are reflexes of the Proto Micronesian verb **tare* 'tear, rip, shred'. Although four languages, Woleaian, Carolinian, Mokilese and Ponapean have reflexes of this verb with **aki*, they do not agree in respect with the thematic consonants. In Mokilese and Ponapean (and therefore perhaps Proto Ponapeic) the **aki* reflex occurs with no thematic consonant. In Woleaian and Carolinian thematic consonants occur, but they are different in each language, reflecting **k* and **ŋ*, respectively. On the basis of the Carolinian and Puluwat forms under (d) a Proto Central Trukic reconstruction **cə-k-i* 'to massage' can be posited. Woleaian

has apparently cognate forms with *-i* and *-ag*, however, the thematic consonant is different, *ŋ* rather than the expected ***x*.

In this sample of Micronesian verbs the reflexes with **aki* of six verbs allow the reconstruction of an **aki* form to a level within Micronesian which has the same thematic consonant as is reconstructable for Proto Micronesian with the transitive suffix **-i*. The reconstructions and the Woleaian reflexes are given in Table 5.34[20]. The correspondence of the thematic consonants with **-i* and **aki* suggests they may be a retention of an original stem-final consonant with both forms. However, the forms which reflect known Proto Oceanic reconstructions do not reflect such a situation. The Proto Oceanic antecedent of Proto Micronesian **p*^{w}*ala-ŋ-i* 'to split, break' is **palaq(-i)* (Ross, Clark, & Osmond 1998: 260), and thus the Proto Micronesian thematic consonant is innovative. Proto Oceanic **q* was lost in Proto Micronesian and it seems that the insertion of an innovative thematic consonant also occurred at the stage of Proto Micronesian, as **ŋ* is reconstructable as the thematic consonant with **-i* for Proto Micronesian. The verb under (c) also has a known Proto Oceanic antecedent, **saʀek-i-* 'to tear' (with an irregular change of Proto Oceanic **s* to Proto Micronesian **t*). Here the Woleaian form regularly reflects the final Proto Oceanic consonant before both *-i* and *-ag*. However, the Carolinian forms show an unexpected thematic consonant and the Mokilese and Ponapean forms show no thematic consonant, where one is expected, as Proto Oceanic **k* is reflected as *k* in both Mokilese and Ponapean.

[20] Subgrouping and sound correspondences for Micronesian are following Jackson (1983, 1986).

Table 5.34: Micronesian recontructions with **-i* and **-aki*

Gloss	Reconstructions[21]		Woleaian reflexes
to split, break	PMic	*p^{w}ala-ŋ-i	ɸeɾi-ŋ-ī
to be split, broken	PWMic	*p^{w}ala-ŋ-aki	ɸeɾi-ŋ-exi
to turn sth over	PMic	*weke-d-i	wexi-t-ī
to turn	PWMic	*weke-d-aki	wexi-t-exi
to hook, catch	PMic	*kɔ-t-i	xø-s-ī
to be hooked, caught	PWMic	*kɔ-t-aki	xø-t-axi
to shut, close	PMic	*pine-t-i	piɾe-s-ī
to be shut, closed	PWMic	*pine-t-aki	piɾe-t-axi
to loosen, untie	PMic	*tala-(d,z)-i	teɾa-t-ī
to be loosened, untangled	PTP	*tala-(d,z)-aki	taɾe-t-axi
to open	PMic	*tū-k-i	sū-x-ī
to be open	PNT	*tū-k-aki	sū-x-exi

5.6.1.4 **AKIN[I]* REFLEXES WITH APPARENT THEMATIC CONSONANTS THAT ARE NOT BOUND FORMS

Further conflicting data concerning **akin[i]* and thematic consonants can be found in several languages, including Longgu and 'Are'are (SES), Mota and Wayan Fijian, where there are reflexes of **akin[i]* apparently with initial thematic consonants which are independent forms. Longgu and 'Are'are have the forms *va'ini-* and *ha'ini-*, respectively, both of which are verbal prepositions that introduce a comitative participant, as in (32) from Longgu[22].

32) ami ho nana'i va'i-ni-a vonu-i
1pl.EXC IRR stay COMIT-TR-3sg turtle-SG
We will stay with the turtle.

(Hill 1992: 250)

[21] The abbreviations of the proto-languages are: PMic - Proto Micronesian; PWMic - Proto Western Micronesian; PTP - Proto Trukic-Ponapeic; and PNT - Proto Nuclear Trukic.

[22] The final *-ni* of Longgu *va'i-ni* is analysed as a transitive suffix, as there is an example of *va'i* without *-ni* (Hill 1992: 249).

In Mota the form *vag*, one allomorph of the transitivising suffix *-Cag* can be separated from the verb. When not attached to a verb, *vag* introduces only a concomitant participant, and cannot be used to denote other types of participants as its corresponding suffixed form can (Codrington 1885: 281-282). In Wayan Fijian, Pawley and Sayaba (n.d.) analyse the *taki* allomorph of *-Caki* as a verbal suffix or post verbal modifier. These free forms with apparent thematic consonants may reflect forms that were once more closely bound to the verb, but have since become independent forms.

A change from affix or clitic to independent word is an unusual one, going against the proposed unidirectional cline of grammaticalisation. Harris and Campbell (1995: 337) describe a change in Estonian parallel to that which appears to have occurred with these reflexes of **akin[i]*. That is, a bound form which had 'protected' a final phonological segment from loss has subsequently become an independent word comprising a phonological segment of its original host. Further research into these reflexes of **akin[i]* in Longgu, 'Are'are, Mota and Wayan Fijian is needed to determine more about their history.

5.6.2 Other evidence concerning the suffix or free form status of **AKIN[I]*

The retention or loss of thematic consonants before **akin[i]* reflexes is not the only evidence that may shed light on whether Proto Oceanic **akin[i]* was a suffix or a free form or both. There is also the degree of phonological independence of **akin[i]* reflexes in the modern languages and what is known about changes in the phonological independence of forms. Thus while a change from a free form to a bound one is not uncommon, the reverse is rarely found. So while a reflex of **akin[i]* which is a suffix may descend from either a suffix or a free form, reflexes of **akin[i]* which are free forms in the modern languages are less likely to have descended from a bound form, but rather are probably descended from a free form. However, as noted above there are several free form reflexes of **akin[i]* with thematic consonants which appear to have become independent forms after having once been suffixes, or at least forms closely linked to the verb in some way. It may be that even as a 'bound' form **akin[i]* retained a certain degree of phonological independence, being a trisyllabic form that may have had its own stress.

In many modern Oceanic languages, including Southeast Solomonic and Fijian ones as described above, the reflexes of **akin[i]* are suffixes with thematic consonants and hence a suffix form **-akin[i]* was originally reconstructed for Proto Oceanic.

However, there are also modern reflexes of **akin[i]* which are not bound forms and thus suggest the reconstruction of a free form, reconstructed as **kini-* by Pawley (1973) and **akini* by Harrison (1982).

Several languages described in Chapter 4, including Tolo (SES), Tamambo (SO), Woleaian and Tongan, have reflexes of **akin[i]* which are free forms. These are the prepositional reflexes, and because of their synchronic status as free forms it is likely that their antecedent was also a free form.

As well as reflexes which are still free forms in modern languages there are also bound forms in modern languages which appear to have become so only recently. For example, the phonological dependence of the *-yaki* allomorph of *-Caki(ni)* in Bauan Fijian is not entirely clear. This form occurs in combination with the reciprocal prefix *vei-* and has a dispersive meaning of 'here and there, in different directions', as shown in (33).

33) e ā vei-soko-**yaki** na cauravou
3u PAST REC-sail-AKI CN youth
The young man sailed hither and thither.

(Arms 1974: 94)

There are phonological differences between *-yaki* and the other *-Caki(ni)* allomorphs, which raise questions about its status as a suffix. Other *-Caki(ni)* suffixes take secondary stress while the verb stem takes the primary stress. However, with *-yaki* it is the suffix which takes the primary stress while the verb stem takes secondary (or perhaps co-primary) stress. Also the symbol *y* in Fijian orthography is of dubious phonemic status. Orthographic *y* in Fijian in word-initial position is predictable. It represents the result of the phonological rule whereby word-initial *a* must be preceded by a palatal glide (Arms 1974: 93-96). Both these characteristics of *-yaki* suggest that it is not a true suffix.

5.6.3 CONCLUSIONS ABOUT THE DEGREE OF PHONOLOGICAL INDEPENDENCE OF **AKIN[I]*

Was **akin[i]* a free form or a bound form? Modern reflexes suggest that it was both. The antecedent of Proto Oceanic **akin[i]* was most probably a free form, but in Proto Oceanic it seems that **akin[i]* was a suffix with at least some verbs. I suggest that Proto Oceanic **akin[i]* became a suffix on a lexeme by lexeme basis. With **taŋis* 'to cry', **akin[i]* was a suffix in Proto Oceanic and hence a form **taŋis-aki[ni]* 'to cry

about, to mourn' is reconstructable. It was probably also a suffix with a number of other verbs, but not with all verbs. This would explain why so many of the modern forms reflecting **akin[i]* with thematic consonants appear to show "incorrect" consonants. Verbs with which **akin[i]* became a suffix later would not reflect a thematic consonant because it was originally part of the verb stem when **akin[i]* was suffixed, but because one has been inserted through analogy with the **akin[i]* forms which already had a thematic consonant, and also forms with **-i*.

The proposal that **akin[i]* became a suffix on lexeme by lexeme basis is to say that the change of **akin[i]* from free form to a bound form was a gradual one with **akin[i]* occurring as both a free form and a bound form in Proto Oceanic and its daughter languages. I suggest that the change to a bound form occurred first with verb stems with which the verb and **akin[i]* had become lexicalised or had developed a specialised meaning that did not simply comprise the meaning of the verb stem and the role denoted by **akin[i]*. For example, the form **taŋis-akin[i]*, derived from **taŋis* 'to cry' did not simply mean 'cry' plus a participant denoting the reason or cause of the crying. Rather the specialised meaning of 'to mourn' is also reconstructable.

The idea of language change being gradual and taking place on a lexeme by lexeme basis is not new. It has been widely discussed with respect to phonological change (see for example, Wang 1969, 1977). Labov (1994) examines the data and conclusions of a number of studies supporting lexical diffusion (sound change on a lexeme by lexeme basis) and others supporting regular sound change (sound change as lexcially regular, changing a sound throughout the lexicon). He analyses these two types of change as two ends of a continuum of sound changes.

The grammaticalisation cline of free word to clitic to affix has also been widely discussed and established as a commonly occurring chain of changes (see for example, Hopper & Traugott 1993). But what of the mechanics of such changes? Can they too occur via a process of lexical diffusion? The evidence from the thematic consonants with reflexes of Proto Oceanic **akin[i]* suggest that this is indeed the way in which **akin[i]* has changed from an independent word to a verbal affix.

However, there are still some questions which need to be addressed concerning the degree of phonological independence of **akin[i]*. Harrison (1982: 181) proposes that Proto Oceanic **akin[i]* became a suffix at different times in different functions, and there are modern languages which are suggestive of this. Micronesian languages generally have two reflexes of **akin[i]*. The first are the forms which have 'transitive' functions. These

forms reflect **akini* and appear to have been suffixed quite recently, never occurring with a thematic consonant and also not reflecting final vowels lost through a post-Proto Micronesian change. However, the detransitivising reflexes of **aki* do occur with thematic consonants, suggesting that with at least some of these verbs **aki* may have been suffixed since before the loss of final consonants. It should be noted that the thematic consonants occurring with the Micronesian detransitivising reflexes of **akin* rarely seem to reflect the historically "correct" consonant, but are mostly the same as with reflexes of **-i*. This suggests that the thematic consonants with Micronesian detransitivising **aki* may have been inserted by analogy with the reflexes of **-i*. Another language which shows a similar situation is North-East Ambae, where a thematic consonant (apparently generalised to *t*) occurs with the causative suffix *-tagi(ni)*, but not with the applicative suffix *-gi(ni)*.

Support for the proposal that the antecedent of **akin[i]* was a free form also comes from several studies, including Ras (1970), Collins (1981) and Adelaar (1984), on Malayic languages[23]. These works conclude that the suffixed reflexes of **akən* in the languages examined have only recently become so and that Proto Malayic **aken* was a preposition.

5.7 How many forms in Proto Oceanic?

Another question concerning **akin[i]* is how many related forms were there in Proto Oceanic? On the basis of modern reflexes there are several different forms which appear reconstructable for Proto Oceanic, including **akini*, **aki*, **kini*, **ki* and **ni*. The modern reflexes of these forms have related functions suggesting a possible common antecedent.

Intransitive forms reflecting Proto Oceanic **akin* were shown to be originally derived from **akini* in section 5.5.2. In Tongan there are 'transitive' functions that reflect **aki*, such as the verbal preposition *'aki*. This may be because the final *-ni* was reanalysed as part of the object enclitics, which have subsequently been lost in Polynesian.

Pawley (1973) reconstructs a bound form **akin[i]* and a free form **kini*. However, as can be seen from Table 5.23, there are bound forms without the initial

[23] The Malayic languages looked at in these studies include Standard Malay, Kelantan Malay, Bacan Malay. Banjarese Malay, Minangkabau, Seraway Middle-Malay and Iban.

vowel and free forms with the initial vowel. I would suggest that both **akin[i]* and **kini* were probably present in Proto Oceanic as free forms, perhaps in free variation.

Several reflexes of an apparent form **ni* were described in Chapter 4, section 4.3. It has been proposed that these forms also reflect **akin[i]*, and that they have applicative uses similar to those of other reflexes of **akin[i]* suggests that this is indeed the case.

Pawley (1973: 122) proposes that the applicative suffixes of the form *-ni* in Roviana and Babatana (MM) reflect **akin[i]* in a phonologically reduced form. Section 4.3 in the previous chapter described the uses of transitivising forms *-ni* in Hoava and Teop (MM) and Lewo (SO), and comparison of such forms with other transitivising forms which reflect **akin[i]* in a non-reduced form reveal certain similarities in usage. Table 5.35 shows the types of participants denoted by *-ni* applicatives[24]. Some of the types of participants denoted by *ni*-applicatives are the same as those denoted by non-reduced reflexes of **akin[i]* (compare Table 5.12). For example, the concomitant with motion verbs, the cause or stimulus of psychological and emotional state verbs, the content of verbs of speech and cognition, and the instrument with process-action verbs, were all found to be common functions of **akin[i]* reflexes. However, the addressee of speech verbs and the goal or source of motion verbs were not found to be functions of other **akin[i]* reflexes.

[24] With some of the languages the data is rather scant, comprising short lists of verbs. For example, Bali-Vitu *-ni* is listed as denoting the cause or stimulus of emotion verbs on the basis of its occurrence with one verb, *kuahi* 'frighten', and the same is true of other languages presented here.

Table 5.35: Participants denoted by *-ni* applicative affixes

verb type	participant denoted	languages
motion	concomitant	Hoava
	goal or source	Teop, Lewo
psychological and emotional states	cause or stimulus	Hoava, Teop, Bali-Vitu, Sisiqa, Nduke, Mono-Alu, Lewo
speech and cognition	content	Bali-Vitu (*tell*), Teop, Hoava
	addressee	Bali-Vitu (*ask*), Mono-Alu
process-action	instrument	Hoava, Teop, Nduke, Lewo

(data from Davis 1997, Mosel & Spriggs n.d., Early 1994, Fagan 1986, Scales n.d., and Ross in press-a)

On the basis of the languages presented in Table 5.35, an applicative form *=*ni* can be reconstructed for Proto Meso-Melanesian, and it seems likely that this *=*ni* is a reduced reflex of Proto Oceanic **akin[i]*. As shown by Table 5.35 the participant role marking function of Proto Meso-Melanesian *=*ni* would have been similar to that of **akin[i]* in terms of the types of participants denoted. Reflexes of Proto Meso-Melanesian *=*ni* and Proto Oceanic **akin[i]* are also similar in that they contrast with the reflexes of the transitivising suffix *-*i* in terms of the types of participants denoted. Reflexes of the **aki* part of Proto Oceanic **akin[i]* are not commonly found in Meso-Melanesian languages, and those which are have intransitive uses. As mentioned in Chapter 4, section 4.2.2, languages of the Tungag/Nalik family, including Kara, Tigak and Tungag, have reflexes of Proto Oceanic **akin* which have detransitivising functions, although more detailed data are needed concerning these forms. The other Meso-Melanesian language that reflects Proto Oceanic **akin* is Hoava, which has an unproductive suffix *-(a)gi*. Hoava *-(a)gi* occurs with passive and reduplicated verbs, as shown by the forms in listed below. With one form *-(a)gi* seems to derive an intransitive verb. This is with the verb *huku* 'hunt, search for food', which has an intransitive form *hukuagi* (Davis 1997: Section 5.3.6).

ta-boŋi-agi	*benighted*	ta-isara-gi	*be laughed at*
ta-bui-gi	*be forgotten*	ta-kia-gi	*be knocked*
ta-gasogaso-agi	*be raftered*	ta-lupaha-gi	*be separated*
ta-holapa-gi	*be surpassed*	ta-toqi-agi	*be knocked in the head*

betubetu	betubetu-agi	*rocking*
pukupuku	pukupuku-agi	*tying*
sekeseke	sekeseke-agi	*tricking*
logaloga	logaloga-egi	*lying, telling fibs*

(data from Davis 1997: Section 5.3.6)

All these facts suggest that Proto Oceanic **akin-i-* had been reanalysed as **aki* plus a transitivising suffix **-ni* in Proto Meso-Melanesian. This change is not an unexpected one in Oceanic languages and can be explained in terms of the final **n* of **akin* being lost through final-consonant deletion, with the **n* subsequently being reanalysed as part of the transitive suffix **-i*. However, in some Meso-Melanesian languages original final consonants have not been lost. Rather final open syllables have been achieved through the addition of an extra vowel. As can be seen from the following Proto Oceanic reconstructions and their Hoava reflexes, Hoava has added an echo vowel, that is the original last vowel has been repeated following the final consonant[25].

Proto Oceanic	Hoava	
*manipis	manivisi	*be thin*
*lab^{w}at	lavata	*be big*
*onom	onomo	*six*
*ikan	igana	*fish (noun)*

But perhaps such a change was prevented with forms ending in **akin* because they would have then been formally indistinguishable from **akin-i-* with the transitive suffix. Or perhaps the **aki-ni-* analysis was a change which spread through the Meso-Melanesian linkage from a dialect which did lose final consonants. However, the clearest reflexes of **=ni* are in languages of New Georgia, ones that have not lost final consonants.

It is also possible that **=ni* is not a direct reflex of Proto Oceanic **akin[i]*. Ross (1988: 111-112) reconstructs for Proto Oceanic a verbal preposition **ni-*, with three

[25] This change was described with respect to Ganoqa (MM) in Chapter 3, section 3.3.1.2.2.

functions: instrumental, confective and refective[26]. Ross follows Harrison (1982: 189-190) in using the terms confective and refective, where confective refers to denoting concomitant participants with motion verbs and refective refers to denoting stimulus or cause participants with verbs pf psychological states or activities. As Ross (1988: 112) suggests, the Meso-Melanesian applicative suffix may reflect this verbal preposition. Evidence form this comes from Teop where the transitivising particle *ni* is still at least semi-separable from the verb.

The origin of the Lewo transitivising suffix *-ni* is even less clear. The similarity in the participant role marking function with other 'clearer' reflexes of Proto Oceanic **akin[i]* makes it seem possible that *-ni* is a reduced reflex of **akin[i]*. It is also possible that Lewo *-ni* reflects the Proto Oceanic transitivising suffix **-i* with an intial thematic consonant. Lewo does not appear to have another reflex of **-i*, so *-ni* may reflect **-i* with a thematic consonant that has been generalised to *n*. Lewo *-ni* could also reflect a captured verbal preposition.

5.8 PROTO OCEANIC **AKIN[I]*

Proto Oceanic **akin[i]* had a participant role marking function, denoting different types of participants with different classes of verbs. As described in section 5.5.2 **akin[i]* denoted:

(a) a concomitant role with motion verbs;
(b) a stimulus or cause role with verbs of psychological and emotional states;
(c) a content role with verbs of speech and cognition;
(d) a product role with verbs of excretion or secretion; and
(e) an instrument or beneficiary role with process-action verbs.

The reconstruction of such a function means that **akin[i]* was in contrast with the transitive suffix **-i* and/or object enclitics for which a participant role marking function is also reconstructed. Table 5.36 shows the types of roles which occurred as the O argument of a transitive construction with **-i* and/or the object enclitics and the types of roles denoted by **akin[i]*.

[26] Pawley (1973: 145-146) proposes that **ni-* was a variant of the instrumental verbal preposition **kini-*.

Table 5.36: Types of roles denoted by *-*i* and **akin[i]*

verb type	roles denoted by O with *-*i* and/or object enclitics	roles denoted by **akin[i]*
motion verbs	location / goal	concomitant
psychological and emotional states	stimulus	cause / stimulus
speech and cognition	addressee	content
excretion/secretion	location	product
process-action verbs	patient	instrument, beneficiary

As mentioned in Chapter 3, with many process-action verbs *-*i* would have had a causative use as such forms were Undergoer subject verbs. Thus *-*i* in fact denoted a cause or agent participant, rather than the patient one which occurred as the O argument. With process-action verbs **akin[i]* appears to have denoted an instrument, and perhaps also a beneficiary, role. Here I propose that a verb plus **akin[i]* contrasted with the form with *-*i* and/or the object enclitics rather than with the intransitive form of the verb.

Section 5.6 looked at the issue of whether **akin[i]* was a free form or a bound form and concluded that in Proto Oceanic **akin[i]* was both a free form and a suffix. The Oceanic data suggest that with some verbs Proto Oceanic **akin[i]* and a preceding verb had become a lexicalised unit and **akin[i]* was a verbal suffix. With at least one verb, **taŋis* 'cry', a form with **akin[i]*, **taŋis-aki[ni]* 'to cry about, mourn', is reconstructable for Proto Oceanic[27]. Proto Oceanic **akin[i]* was probably also a suffix with a number of other verbs.

Implicit in this hypothesis is that **akin[i]* was also a free form. But there remains the question of what type of free form it was. That is, to what word class did **akin[i]* belong? There appear to be at least two possible analyses: (i) the antecedent of **akin[i]* was a verb which had developed into a verbal preposition by Proto Oceanic, retaining certain verbal characteristics; or (ii) the antecedent of Proto Oceanic **akin[i]* was a preposition which had developed verbal characteristics.

[27] There is some evidence to suggest that **akin[i]* had not long been a suffix with **taŋis* 'cry'. The Wolio cognates of this verb reflect the "correct" thematic consonant with the transitive suffix *-i*, *taqi-s-i* 'to cry over someone', but no thematic consonant with *-aka*, *taqi-aka* 'to bewail something'.

Harrison (1982) proposes that the antecedent of Proto Oceanic **akin[i]* was originally a lexical verb which occurred as the second and final verb in a serial verb construction. Such constructions, according to Harrison (1982), were periphrastic causatives. A verbal origin of **akin[i]* would explain why modern Oceanic reflexes are verbal prepositions, that is, their verbal characterisitics would reflect their verbal origin. Such an analysis would also explain the final **-i* of **akin[i]*. In pre-Proto Oceanic **akən* would have been a consonant-final element at the end of the verb complex, after which the object enclitics would have occurred. And thus the by then phonologically-determined element **-i* would have occurred between **akən* and the object enclitics.

However, there are several problems with this analysis. First, there are the apparent functions of **akin[i]* and its antecedent **akən*. Section 5.5 looked at the functions reconstructable for Proto Oceanic **akin[i]*. As shown by Table 5.36, **akin[i]* had a participant role marking function denoting different types of roles with different types of verbs. On the basis of **akin[i]* cognates in non-Oceanic languages it seems likely that the participant role marking function was also a function of **akən*. This type of function is typical of a preposition, but not so reconcilable with a lexical verb. Harrison (1982) suggests that these participant role marking uses developed from an original causative use. A problem with this analysis is that in causative serial verb constructions it is often the causative verb that comes first (Durie 1997: 333). There is a reflex of **akən* as a lexical verb in Tukang Besi. This is the form *ako* 'to do for'. However, it seems unlikely that other reflexes and cognates of **akin[i]* have developed from a verb with a benefactive meaning as this usage is hardly found at all in Oceanic languages, and not commonly in non-Oceanic languages.

In Oceanic languages the prepositional reflexes of **akin[i]* are verbal prepositions which take the verbal object markers to index the person and number of their object. With other forms, reconstructed for Proto Oceanic as verbal prepostions, such as **pani-* 'benefactive' and **suRi-* 'allative', fully-verbal forms **pani* 'to give' and **suRi* 'to follow' are also reconstructable. However, the same is not true with Proto Oceanic **akin[i]*. That is, while **akin[i]* reflexes suggest the reconstruction of a verbal preposition, a related fully-verbal form cannot be reconstructed. This suggests that **akin[i]* may have a different origin.

The second hypothesis, and the one considered more plausible here, is that the antecendent of Proto Oceanic **akin[i]* was a preposition. Pawley and Reid (1979) also propose that **akin[i]* and its antecedent **akən* were prepositions, but the development of Proto Oceanic **akin[i]* presented here is different from their analysis in several aspects.

If the antecedent of **akin[i]* were a preposition, how did it develop the verbal characteristics of a verbal preposition? There were two categories of prepositions in Proto Oceanic: (a) the local and temporal preposition **i*; and (b) the verbal prepositions which took a verbal object enclitic indexing their object. It seems likely that pre-Proto Oceanic **akən* was reanalysed as a verbal preposition as this was the class of forms most similar to it in behaviour. Proto Oceanic **i* took only local nouns as its object. Local nouns were those denoting familiar places, such as 'home', '(own) village', 'bush' and 'beach', and directly possessed locative part nouns, such as 'inside', 'above' and 'underneath' (Lynch, Ross & Crowley in press: cht 4). In terms of the types of roles introduced by **akən*, it was very different from **i*, and also it apparently did not have any similar restrictions on the class of items that it could take as its object. One of the most obvious characteristics of a verbal preposition was that it took the verbal object enclitics to index its object. If **akən* were reinterpreted as a verbal preposition it would have come to also take the object enclitics, perhaps first in place of a pronominal object and later as an agreement marker with a nominal object.

The other verbal characteristic of Proto Oceanic **akin[i]* is the final segment **-i* which appears to reflect the transitive suffix **-i*. But why would **-i* have been added to a preposition? The other Proto Oceanic verbal prepositions had the syllable structure CVCV[28], where the final vowel was **i*. As verbs such forms would have taken the object enclitics directly, and apparently did the same as verbal prepositions. But **akən* was a consonant-final form and other consonant-final forms that took the object enclitics, that is consonant-final verbs, would have taken **-i* before the object enclitics. By analogy **-i* was apparently added to **akən* before the object enclitics. An irregular change of vowel assimilation apparently changed **akən-i-* to **akin-i-*.

Once it had the verbal characterisitics of taking **-i* and the object enclitics, the changes of **akin[i]* from verbal preposition to verbal modifier within the verb complex and finally to verbal suffix can be described as a reanalysis of potentially ambiguous structures. Structure (i) in Figure 5.2 demonstrates the proposed structure of an intransitive clause with the preposition **akin[i]*. The clause in (i) has no subject noun phrase, rather the S argument is indicated by the subject proclitic on the verb[29]. This clause type comprised a verb complex (the verb and its subject proclitic[30]) followed by a

[28] The exception to this is the comitative preposition **ma[i]*.

[29] Proto Oceanic probably had verb-initial word order, but because the majority of verbal clauses in Oceanic languages have no more than one noun phrase, the order of the core arguments are not obviously reconstructable (Lynch, Ross & Crowley in press: cht 4). It seems likely that the majority of Proto Oceanic verbal clauses also had no more than one noun phrase, and thus it is not implausible to propose that structures like (i) occurred.

[30] Tense/aspect/mood marking is not indicated.

prepositional phrase consisting of **akin*, which was marked by **-i* and an object enclitic and followed by its object noun phrase. Structure (ii) shows how this same sequence of morphemes could be analysed as a verb complex comprising a verb plus modifier **akin* with the transitive suffix **-i* and the object enclitic occurring on the final element of the verb complex. The noun phrase would then be interpreted as an O argument. I suggest that the structural ambiguity of this sequence of morphemes led to the reanalysis of an original structure (i) as structure (ii), and this in turn led to the reanalysis of **akin[i]* as a verbal suffix. As mentioned earlier, the reanalysis of **akin[i]* as part of the verb complex would have occurred first with verbs with which the verb plus **akin[i]* had come to have a specialised meaning.

Figure 5.2: Two analyses of clauses with **akin[i]*

(i) $[\text{SUBJ=V}]_{VC}$ $[\textit{akin-i}\text{=OBJ NP}_X]_{PP}$

(ii) $[\text{SUBJ=V } \textit{akin-i}\text{=OBJ}]_{VC}$ $[O_X]_{NP}$

This analysis of Proto Oceanic **akin[i]* accounts for the participant role marking functions reconstructed in Table 5.36, but does not account for the causative uses of **akin[i]* reflexes. As described in section 5.5 the causative use with reflexes and cognates of **akin[i]* is widespread in both Oceanic and non-Oceanic languages. Did such uses develop independently or were they original uses? To say that the causative usage was an old function of **akən* that has been inherited by both non-Oceanic languages and Proto Oceanic is to attribute such a usage to a preposition. In modern languages the causative use of **akin[i]* reflexes and cognates appear to always be verbal suffixes. That is, I have not found any prepositional reflexes where the object of the preposition denotes an agent participant. If this were the case it would seem possible that both the applicative and causative uses developed from an original prepositional one. It would also provide an explanation of the detransitivising reflexes of **akin[i]* in Micronesian languages. That is, a preposition which denoted an agent participant could have become an anaphoric element that left a trace of an implied, but not expressed, agent, and from there an element that derived a clause in which an agent participant is not expressed or necessarily implied (cf. Harrison's (1982) description of Micronesian **aki* given in section 5.2.2).

From the data known to me it seems more likely that the prepositional use has developed into the applicative use and from there a causative use has developed. A change from an applicative to a causative use can be explained following Harrison's (1982)

mechanism of reinterpretation of semantic roles in ambiguous constructions. As described in sections 5.2.2 and 5.5.2, Harrison (1982) proposes that a construction like (i) in Figure 5.3 can have two interpretations. As under (a) it can mean that the agent moves with the patient. This is how North-East Ambae *vano-gi(ni)* 'to go with sth/s.o.' is interpreted. A second interpretation is that under (b), where the agent, without moving, causes the patient to move. This is how North-East Ambae *saka-tagi(ni)* 'to put sth up top' is interpreted.

Figure 5.3: Interpretations of **akin[i]* with motion verbs

(i) agent motion verb + **akin[i]* patient
  (a) agent moves with patient
  (b) agent causes patient to move

Harrison (1982) suggests that a construction like (i) can shift from the interpretation under (b) to the interpretation under (a) through a change in the role of the agent participant from that of simply a causer to that of a causer and "mover". This would change the function of **akin[i]* from a causative to an applicative one. The change I propose is the reverse, that is, from applicative to causative. However, Harrison's (1982) mechanism of change seems equally plausible in reverse.

While it seems clear that Proto Oceanic **akin[i]* had a causative function with some verbs, it is not entirely clear how this usage developed. The causative uses of **akin[i]* remain an issue in need of further study.

6 **pa- and *paka-*

6.1 INTRODUCTION

Two forms, **pa-* and **paka-*, are reconstructable for Proto Oceanic as verbal prefixes used to derive causative verbs (see Pawley 1972: 38-39, Pawley 1973: 128 and Ross 1988: 390-392). Reflexes of these prefixes often have other uses too and an examination of such forms suggests the reconstruction of two other functions: deriving verbal modifiers from U-stative verbs and deriving multiplicative forms from numerals. The reconstruction of two forms with the same functions raises the question of whether any distributional or functional distinctions between the two forms can be reconstructed. Oceanic reflexes provide evidence that **paka-*, but not **pa-*, derived multiplicatives from numerals. Cognate forms in non-Oceanic languages suggest that this was the remnant of a broader pre-Proto Oceanic distinction, where **pa-* occurred with Actor subject verbs and **paka-* with U-stative verbs, a subclass of which was numerals.

6.2 OCEANIC REFLEXES OF **PA-* AND **PAKA-*

Reflexes of **pa-* and **paka-* are found in a wide range of Oceanic languages, and are given in the second and third columns of Table 6.1. The fourth column gives reflexes of an apparent form **ka-*. Such forms are found only in Micronesian languages and are looked at in section 6.2.2.

Table 6.1: Causative prefixes in Oceanic languages

language group	*pa- reflexes	*paka- reflexes	*ka- reflexes
NNG	Arop-Lukep *pa-*		
	Mangap-Mbula *pa-*		
	Kilenge *pa-*		
		Manam *aʔa-*	
PT	Misima *pa-*		
	Sudest *va-*		
		Sinaugoro *vaɣa-*	
	Mekeo *Ba-*[1]		
	Gumawana *va-*		
	Molima *ve-*		
	Tawala *wo-*		
	Buhutu *fa-*		
MM	Vitu *va-*		
		Bulu *vaka-*	
	Nakanai *va-*	Nakanai *vaka-*	
	Tungag *a-*		
	Kara *fa-*		
	Nalik *fa-*		
	Lihir *ha-*		
	Siar *a-*		
	Taiof *fa-*		
	Teop *va-*	Teop *vaa-*	
	Roviana *va-*		
	Hoava *va-*		
	Kokota *fa-*		

[1] The Mekeo form *Ba-* represents the three phonological variants *pa-*, *ba-* and *βa-* which occur in the different Mekeo dialects.

Table 6.1 (cont)

language group	*pa- reflexes	*paka- reflexes	*ka- reflexes
SES	Gela *va-*		
		Longgu *va'a-*	
		Lau *faa-*	
		Kwaio *fa'a-*	
		Kwara'ae *fa'a-*	
		Arosi *ha'a-*	
SO	Mota *va-*	Mota *vaga-*	
	Lakon *va-*		
		Mwotlap *ak-*	
	Tamambo *va-*	Tamambo *vaha-*	
		N-E Ambae *vaga-*	
		Paamese *haa-*	
		Anejom̃ *ec-*	
	Cèmuhî *pá-*		
	Xârâcùù *fa-*		
	Tinrin *fa-*		
	Nêlêmwa *fa-*		
Mic			Kosraean *ahk-*
			Mokilese *ka-*
			Woleaian *ga-*
			Ulithian *xa-*
Fij		Boumaa *va'a-*	
	Nadroga *va-*		
		Wayan *vaka-*	
Pn		Tongan *faka-*	
		Samoan *fa'a-*	
		Tokelauan *faka-*	
		Marquesan *haka-*	

As can be seen from Table 6.1 most languages reflect either **pa-* or **paka-*, and there are only a few languages, including Nakanai and Teop (MM) and Mota and

Tamambo (SO), which reflect both forms. Also of note is the general tendency for Western Oceanic languages to reflect **pa-* and Central/Eastern Oceanic languages to reflect **paka-*. Ross (1988: 391) notes four unambiguous reflexes of **paka-* in Western Oceanic languages, namely, Manam (NNG) *aʔa-*, Bulu and Bola (MM) *vaka-*, and Sinaugoro (PT) *vaɣa-*. The majority of Western Oceanic languages show forms which suggest the reconstruction of a causative prefix **pa-*. In many Western Oceanic languages reflexes of **pa-* and **paka-* are expected to be indistinguishable because of the commonly occurring loss of medial **k*. However, even languages which normally retain a reflex of medial **k* have forms which reflect **pa-*. For example, Bali-Vitu, Roviana and Keapara (Aroma) *va-* (for expected ***vaɣa-*) and Maringe *fa-* (for expected ***faɣa-*) (Ross 1988: 390-392). However, while there is a tendency for **paka-* to be reflected more widely in Central/Eastern Oceanic and **pa-* to be reflected more widely in Western Oceanic, the presence of both forms in both language groups and the presence of cognates of both forms in non-Oceanic Austronesian languages does suggest, as Ross (1988: 390-392) concludes, that Proto Oceanic had both forms **pa-* and **paka-*.

6.2.1 FUNCTIONS OF **PA-* AND **PAKA-* REFLEXES

Reflexes of **pa-* and **paka-* are usually described as causative prefixes that derive a causativised verb form. However, such forms often have other functions as well. For example, Samoan (Pn) *fa'a-* can be described in terms of five different uses:

(i) causative (eg. *fa'a-moe* 'put to sleep' from *moe* 'sleep')
(ii) multiplicative (eg. *fa'a-lua* 'do twice' from *lua* 'two')
(iii) associative (eg. *fa'a-pua'a* 'like a pig' from *pua'a* 'pig)
(iv) attributive (eg. *fa'a-Sāmoa* 'Samoan (language, way)' from *Sāmoa* 'Samoa')
(v) delocutive (eg. *fa'a-tōfā* 'say goodbye from *tōfā* 'goodbye')

(Mosel & Hovdhaugen 1992: 175-179, 735 and Milner 1966)

Table 6.2 gives different uses of **pa[ka]-* reflexes and the languages in which they occur. In most of the languages examined here that have reflexes of either **pa-* or **paka-*, such forms have at least the causative function[2]. In languages such as Manam (NNG), this is the only use, but in other languages, like Hoava (MM), Longgu (SES), Wayan Fijian and Samoan, the causative function is one of two or more uses. In the

[2] The only exception to this that I know of is Anejom̃ (SO) *ec- /eɣ/*, a reflex of **paka-*, which has only the multiplicative function.

languages examined which reflect both *pa- and *paka-, at least one form, if not both, has the causative function. The non-causative uses of *pa[ka]- reflexes found in Oceanic languages include: different uses with transitive verbs; deriving multiplicative forms; deriving ordinal numbers; deriving adverbials or verbal modifiers; and the associative, attributive and delocutive uses.

Table 6.2: Uses of *pa[ka]- reflexes

(i) causative use with intransitive verbs
Manam and Mangap-Mbula (NNG), Sinaugoro (PT), Hoava, Teop, Nalik and Nakanai (MM), Gela, Longgu and Kwaio (SES), Maewo, Tamambo, N-E Ambae and Tinrin (SO), Fijian languages, Samoan (Pn)
(ii) use with transitive verbs
Mangap-Mbula, Longgu, Tinrin, Wayan Fijian, Boumaa Fijian
(iii) multiplicative use
Sinaugoro, Nakanai, Gela, Tamambo, N-E Ambae, Boumaa Fijian, Samoan
(iv) deriving ordinal numbers
Sinaugoro, Banoni, Nalik, Maewo
(v) deriving verbal modifiers
Banoni, Hoava, Teop, Kwaio, Boumaa Fijian
(vi) associative use
Teop, Fijian languages, Samoan
(vii) attributive use
Teop, Fijian languages, Samoan
(viii) delocutive use
Teop, Fijian languages, Samoan

The causative use of *pa[ka]- reflexes is one whereby a causative verb is derived from an intransitive verb such that the S argument of the intransitive form of the verb corresponds to the O argument of the causative form of the verb and an agent (causer) participant is introduced as the A argument. This is demonstrated by the following two examples from Tinrin (SO). In (1) *dòwò-rò* 'my clothes', the patient participant is expressed as the S argument of the intransitive clause. In (2) the verb takes the causative prefix *fa-*, and the patient participant is expressed as the O argument and a causer participant has been introduced as the A argument.

1) nrâ marri [nrâ dòwò-rò]$_S$
3sg dry SM clothes-1sg
My clothes are dry.

(Osumi 1995: 114)

2) nrâ **fa**-marri [dòwò-rò]$_O$ [nrâ nanu]$_A$
3sg CAUS-dry clothes-1sg SM N.
Nanu dries my clothes.

(Osumi 1995: 114)

In a few Oceanic languages, including Mangap-Mbula (NNG), Longgu, Wayan Fijian and Tinrin, reflexes of **pa[ka]-* can be attached to transitive verbs, however, the use of such reflexes differs across languages.

In Tinrin *fa-* has the same causativising use with transitive verbs as it has with intransitive verbs. As shown by (3) and (4), when *fa-* is attached to a transitive verb a causer participant is introduced into the clause as the A argument and the agent participant of the underived verb is expressed as a peripheral argument marked by the preposition *nrî*. The O arguments of both the non-causative and causative forms of the verb denote the patient participant.

3) nrâ soghe [toni]$_O$ [nrâ mwîê]$_A$
3sg stab Tony SM woman
A woman stabbed Tony.

(Osumi 1995: 117)

4) nrâ **fa**-soghe [toni]$_O$ [nrâ saarri]$_A$ [nrî treanrü]$_{PP}$
3sg CAUS-stab Tony SM Charlie by person
Charlie got someone to stab Tony.

(Osumi 1995: 117)

This is the effect of the causative prefix when used with the majority of transitive verbs. However, with a few verbs the A of the non-causative transitive verb corresponds to the O of the causativised verb, and the O of the transitive verb is expressed as the object of the preposition *nrî* in the causativised clause (Osumi 1995: 115-117). This is demonstrated by (5) and (6). In (5) the transitive verb *hara* 'eat' occurs with the agent participant, the eater, as A and the patient participant, the thing eaten, as O. In (6) the causative form of the verb occurs and a causer participant has been introduced as A. The

agent participant, the eater, is expressed as O and the patient, the thing eaten, is expressed as the object of a preposition.

5) [ke]$_A$ hara [nraasi]$_O$
2sg eat rice
You eat rice.

(Osumi 1995: 115)

6) [sabùrina]$_A$ nrâ fa-hara [nrü]$_O$ nrî nraasi
S. 3sg CAUS-eat 2sg PREP rice
Sabrina fed you rice.

(Osumi 1995: 116)

In Longgu, most transitive verbs do not take the causative prefix *va'a-*, but it can be attached to a few derived transitive verbs to rearrange the valency. For example, the derived transitive verb *mae-si* 'to die of' takes an experiencer participant as A and a cause participant as O, as in (7). When the causative prefix is added to such verbs, as in (8), the cause participant is expressed as the A and the experiencer participant is expressed as O. This causative structure is used only when the cause participant is inanimate. There is also a causative form derived from the intransitive form of the verb *mae* 'to die, be dead'. As shown by (9) this causative form is used when the cause participant is animate. Hill (1992: 66-69) proposes that *va'a-mae-si-* has the structure of *va'a-* plus *mae-si-* because of the way in which the cause role, expressed as the O argument of the 'plain' transitive clause, is promoted to A in the causative clause. This is different from other verbs of the structure causative prefix-verb-transitive suffix, where the prefix and the suffix are added simultaneously as the changes in grammatical relations are the same as those that occur when a causative verb (with no transitive suffix) is derived from an intransitive verb.

7) [e]$_A$ mae-si-a [malaria-i]$_O$
3sg die-TR-3sg malaria-SG
He died of malaria.

(Hill 1992: 66)

8) [malaria-i]$_A$ e **va'a**-mae-si-a ['usu-i]$_O$
malaria-SG 3sg CAUS-die-TR-3sg dog-SG
Malaria killed the dog.

(Hill 1992: 66)

9) [te mwane]$_A$ e va'a-mae-a [geni]$_O$
one man 3sg CAUS-die-3sg woman
A man killed the woman.

(Hill 1992: 64)

With one transitive verb in Longgu, *va'a-* seems to have the causative use with which a cause participant is added as the A argument. Here the A argument of the non-causative verb is expressed as the O of the causativised form, and the O argument of the non-causative verb is expressed as a second object (O2) with the causativised verb.

10) ['aigaruai]$_A$ e sara-vi-a [komu oe]$_O$
dugout.canoe 3sg arrive-TR-3sg village 2sg
The dugout canoe reached your village (went ashore).

(Hill 1992: 67)

11) go **va'a**-sara-vi-a ['aigaruai]$_O$ [komu nau]$_{O2}$
OBL CAUS-arrive-TR-3sg dugout.canoe village 1sg
You must make the canoe reach my village (go ashore).

(Hill 1992: 67)

In Wayan Fijian the prefix *vaka-* attached to transitive verbs does not affect the valency, but rather indicates that the agent participant is 'trying to' or 'pretending to' carry out the action denoted by the verb, as shown by the following examples.

bulani	*'burn sth'*	vaka-bulani	*'try to burn sth'*
cobe	*'challenge'*	vaka-cobecobeti	*'make as if to challenge s.o.'*
qalukutia	*'snatch sth, grab hold of sth'*	vaka-qalukutia	*'try to grab hold of something'*

(Pawley & Sayaba n.d.)

In Mangap-Mbula the function of the causative prefix *p-* with transitive verbs is dependent on the degree of transitivity of the verb. With verbs of low transitivity, that is, those encoding low volitionality and little change of state to the patient, *p-* has the same causative function as with intransitive verbs. However, with highly transitive verbs *p-* indicates increased effort on the part of the agent participant (Bugenhagen 1995: 174-175), as shown by (12) and (13).

12) aŋ-kaaga kataama
1sg-open door
I open the door.

(Bugenhagen 1995: 175)

13) aŋ-**pa**-kaaga kataama
1sg-CAUS-open door
I managed to get the door open.

(Bugenhagen 1995: 175)

Reflexes of **pa[ka]-* in many languages derive multiplicative forms from numerals. For example, in Tamambo the prefix *vaha-*, which is used to causativise a few verbs, is also attached to numerals to derive a multiplicative meaning. Thus *rua* 'two' becomes *vaha-rua* '(do) twice' and *tolu* 'three' becomes *vaha-tolu* '(do) three times' (Jauncey 1997: 132). The prefix *vaha-* can also be added to the interrogative numeral *avisa* 'how many' to derive a multiplicative meaning, as shown in (14)..

14) niho o vano ana tano **vaha**-visa
IP:2sg 2sg go PREP garden CAUS-how.many
How many times did you go to the garden?

(Jauncey 1997: 132)

In some languages reflexes of **pa[ka]-* occur in the formation of ordinal numbers. In Sinaugoro the prefix *vaɣa-*, which derives causative verbs from intransitive verbs, as in *vaɣa-namo* 'to improve' from *namo* 'good', and multiplicatives from numerals, as in *vaɣa-toitoi* 'three times' from *toitoi* 'three', occurs in conjunction with the 3sg possessive suffix *-na* in the formation of ordinal numbers (Tauberschmidt, 1999: 23, 40 & 41), as shown in the following list of forms. Ordinal numbers in Sinaugoro appear to be quantitative adjectives and the 3sg possessive suffix is apparently unchanging. That is, it seems always to occur as 3sg rather than agreeing with the person and number of the head noun.

ruarua	*two*	vaɣa-ruarua-na	*second*
toitoi	*three*	vaɣa-toitoi-na	*third*
vasivasi	*four*	vaɣa-vasivasi-na	*fourth*
imaima	*five*	vaɣa-imaima-na	*fifth*

(Tauberschmidt, 1999: 40)

In Maewo (SO) ordinal numbers are derived from the numerals 'two' to 'nine' by the causative prefix *vaga-* and the transitive suffix *-i*, thus *vaga-rua-i* (CAUS-two-TR) 'second', *vaga-toli-i* (CAUS-three-TR) 'third', and *vaga-vati-i* (CAUS-four-TR) 'fourth' (Codrington 1885: 415). In Nalik (MM) ordinal numbers are transitive verbs formed by a combination of the causative prefix *fa-* and the transitive suffix *-ing*, thus *fa-rol-ing* (CAUS-three-TR) 'third' is derived from *orol* 'three' (Volker 1994: 94).

Reflexes of **pa[ka]-* also occur deriving adverbial forms or verbal modifiers. Davis (1997: Section 5.3.3) demonstrates the difference between this function and the causativising use in Hoava. Examples (15) and (16) demonstrate the different uses of the prefix *va-* with the verb *kisi* 'be small'. With the causative use of *va-* in (15) the meaning is clearly 'make or cause to be small', whereas in (16) *va-kisi* has the adverbial function, modifying *lavati* 'be big', thus giving the meaning of 'to become big by a little'.

15) **va**-kisi-a sa zuke
CAUS-be.small-TR:3sg ART:SG lamp
Turn the light down (lit: make the lamp small).
(Davis 1997: Section 5.3.3)

16) la lava=lavati **va**-kisi eri karu
go REDUP=be.big ADV-be.small ART:PL two
The two were growing a little.
(Davis 1997: Section 5.3.3)

Dixon (1988: 109) describes a range of uses of Boumaa Fijian *va'a-* as part of a wider function of deriving adverbs from adjectives, numbers, common nouns and place names (Dixon 1988: 109). Table 6.3 gives forms with *va'a-* which behave as adverbs in Boumaa Fijian.

Table 6.3: Boumaa Fijian *va'a-* deriving adverbs

base form			*va'a-* form	
(A)	levu	*big, a lot (adj.)*	va'a-levu	*greatly, to a great extent*
	balavu	*long (adj.)*	va'a-balavu	*lengthily*
	biibii	*serious, heavy (adj.)*	va'a-biibii	*seriously*
	vina'a	*good (adj.)*	va'a-vina'a	*well, properly*
(B)	vitu	*seven (num.)*	va'a-vitu	*seven times*
(C)	tuuraga	*chief (n)*	va'a-tuuraga	*chiefly, noble*
	boto	*frog (n)*	va'a-boto	*like a frog*
	gone	*child (n)*	va'a-gone	*childish*
(D)	Viti	*Fiji (n)*	va'a-Viti	*Fijian*

(Dixon 1988: 109-110)

Those forms under (A) have the same verbal modifier function as that just described for Hoava. With the form under (B) *va'a-* has the multiplicative use described above. The three forms under (C) are *va'a-* adverbs derived from nouns with the meanings of 'to have characteristics of', 'be similar to' or 'in the manner of' the referent denoted by the noun. This use of **pa[ka]-* reflexes is found in other Fijian and Polynesian languages where it has been called the similative or associative function. The following forms from Samoan give further examples of this use. In Samoan these derived forms are what Mosel and Hovdhaughen (1992: 105, 176) call non-ergative verbs, verbs which denote states of affairs involving one participant that is an agent or a patient.

mauga	*mountain*	fa'a-mauga	*like a mountain*
taufusi	*swamp, marsh*	fa'a-taufusi	*marshy*
tinā	*mother*	fa'a-tinā	*motherly, being like a mother, adoptive mother*

(Mosel & Hovdhaugen 1992: 176-177)

With the form under (D) in Table 6.3, *va'a-* has the meaning of 'pertaining to' or 'belonging to' the referent denoted by the noun to which it is attached. This use has been called the attributive function and is also found in other Fijian and Polynesian languages. Examples from Samoan include:

Sāmoa	*Samoa*	fa'a-Sāmoa	*Samoan (language, way)*
aso nei	*today*	fa'a-aso-nei	*modern*
fitafita	*soldier*	fa'a-fitafita	*military*

(Mosel & Hovdhaugen 1992: 176-177 and Milner 1966)

The final function of **pa[ka]-* reflexes noted in Table 6.2 is the delocutive one. In this use reflexes of **pa[ka]-* when attached to an interjection or other forms denoting an utterance has the meaning of 'to say that interjection or utterance'. Examples of this use in Wayan Fijian, Boumaa Fijian and Samoan are given below. This use of **pa[ka]-* reflexes is found in a number of Fijian and Polynesian languages.

Wayan Fijian			
āmeni	*Amen*	vaka-āmeni	*say Amen*
ē	*yes*	vaka-ē	*say yes*
Boumaa Fijian			
bula	*hello (lit. health)*	va'a-bula	*say bula*
io	*yes*	va'a-io	*say io*
Samoan			
tōfā	*goodbye*	fa'a-tōfā	*say goodbye*

(Pawley & Sayaba n.d., Dixon 1988: 182, Milner 1966)

6.2.2 MICRONESIAN **KA-*

In Micronesian languages the prefixes that derive causative forms from intransitive verbs reflect an apparent form **ka-*. For example, Woleaian *ga-* or *ge-* derives causative verbs from intransitive verbs, as demonstrated by (17) and (18). In (17) the intransitive verb *temwaaiu* 'be sick' occurs and in (18) this verb is used with the causative prefix. The experiencer participant is expressed as intransitive S in (17) and transitive O in (18), and in (18) a cause participant is introduced as A.

17) ye sa temwaaiu sar yeel
3sg PERF sick child DEM
This child is sick.

(Sohn 1975: 254; gloss mine)

18) ye sa **ga**-temwaaiu-w sar yeel
3sg PERF CAUS-sick-OBJ child DEM
It has made this child sick.

(Sohn 1975: 254; gloss mine)

This prefix in Woleaian can also occur with nouns or numeral compounds, but only rarely. In these environments *ga-* also derives a causative verb, thus in (19) and (20) the stems *sensei* 'teacher' and *riuweg* 'twenty' have been causativised.

19) i **ga**-sensei-iy
1sg CAUS-teacher-OBJ
I made him a teacher.

(Sohn 1975: 256; gloss mine)

20) ye sa **ga**-riuweg-a
3sg PERF CAUS-twenty-OBJ
He has made it twenty.

(Sohn 1975: 256; gloss mine)

In Micronesian languages reflexes of **ka-* function as productive causative prefixes, a function which in other languages is associated with reflexes**pa-* and **paka-*, and the prefixes **pa-* and **paka-* are not retained. There are two ways in which the Micronesian causative forms could be explained: a) it could be that **pa-* and **ka-* were separate morphemes in Proto Oceanic which combined in the sequence **pa-ka-*, the Micronesian languages reflecting **ka-*, but not **pa-*; or b) the Micronesian causative prefixes may be a reduced form of **paka-*. If **pa-* and **ka-* were separate morphemes and one could occur without the other it would also be expected that some Oceanic languages would reflect **pa-* and **ka-* separately as well as reflecting the sequence **pa-ka-*. However, a problem with this hypothesis is that while reflexes of **pa-* and of **paka-* are very common amongst Oceanic languages, reflexes of **ka-* are found only as fossilised prefixes with certain lexical items, suggesting that in Proto Oceanic **ka-* had lost its productivity as an independent prefix. A second problem with this hypothesis is that the causative function was associated with **pa-* and **paka-* in Proto Oceanic is associated with just **ka-* in Micronesian languages.

Under the second hypothesis pre-Micronesian would have retained Proto Oceanic **paka-* as a causative prefix. At a later stage an idiosyncratic innovation occurred and the initial syllable was lost from this form leaving **ka-* as the causative prefix. It is most

economical to posit the period of loss as pre-Micronesian because, as far as I know, Micronesian languages uniformly reflect **ka-*, but not **paka-*. The reduction of **paka-* to **ka-* in pre-Micronesian can be explained in terms of it having been a frequently used morpheme and thus liable to become reduced in form.

This latter hypothesis seems to be the more plausible in that it does not raise the question of how functions which are assumed to have been associated with **pa-* and **paka-* came to be associated with **ka-*. Pre-Proto Micronesian presumably inherited the form **paka-* and its functions, and the phonological reduction which took place did not necessarily lead to a change in its functions.

This hypothesis about the Micronesian causative prefix **ka-* would be more convincing if reflexes of Proto Micronesian **ka-* also had some of the non-causative uses of **pa[ka]-*. The only non-causative function of **ka-* reflexes in Micronesian languages is to derive ordinal numbers. For example, in Kosraean ordinal numbers are formed by adding the prefix *ahk-* to the *sie* cardinal numbers[3]. Thus *ahk-luo* 'second' is derived from *luo* 'two' and *ahk-tolu* 'third' from *tolu* 'three'. In Mokilese also ordinal numbers are regularly derived from numerals with the prefix *ka-*, thus *ka-riaw* 'second' from *riaw* 'two'. However, the history of these forms is not entirely clear. They may reflect a second use of the "causative" prefix, or this **ka-* may reflect the other ordinal forming prefix **ika-*, reflexes of which are found in Fijian languages and some non-Oceanic languages.

6.3 Functions reconstructable for Proto Oceanic **pa[ka]-*

Table 6.2 listed several uses found with reflexes of **pa[ka]-*, and as can be seen some of these uses occur in a wide range of languages. But how many of these functions are reconstructable for the proto-forms?

For Proto Central/Eastern Oceanic, Pawley (1972: 38-39) reconstructs a causative prefix **paka-* which derived transitive verbs from common nouns and intransitive and stative verbs. When used with quantifiers it indicated multiplication rather than causation. This is shown by the following Proto Central/Eastern Oceanic reconstructions.

[3] Kosraean has two sets of cardinal numbers depending on the noun or the intended meaning of the noun modified (see Lee 1975: 119-122). Kosraean *ahk-* is an irregular reflex of Proto Micronesian **ka-*. Without further research it is not clear if this form is due to metathesis, or if it suggests the presence of an original initial vowel.

*puti	*(to be) white*	*paka-puti-Ci	*to whiten*
*maqudi	*(to be) alive*	*paka-maqudi-Ci	*to save s.o.*
*nsala	*path,way*	*paka-nsala-Caki	*to show s.o.*
*tolu	*(to be) three*	*paka-tolu	*to do three times*

(Pawley 1972: 39)

The suffixes, *-Ci* and *-Caki*, on the non-multiplicative forms derived with **paka-* are the transitive suffixes, which Pawley (1972: 38-39 & 46) also reconstructed for Proto Central/Eastern Oceanic. Similar reconstructions can be made for Proto Oceanic.

The most commonly found function of **pa[ka]-* reflexes in Oceanic languages and indeed the one that is found in almost all languages with such reflexes is to derive a causative verb form from an intransitive verb form. This use was clearly also one of Proto Oceanic **pa[ka]-*, not only on the basis of the uses of the modern reflexes, but also on the basis that some lexical items can be reconstructed with **pa[ka]-* as a causative prefix. Such reconstructions include:

*mate	*die, be dead*	*pa[ka]-mate-	*to kill, cause to die*
*maqudip	*live, be alive*	*pa[ka]-maqurip-i-	*save, cause to live*
*matakut	*be afraid*	*pa[ka]-matakut-i-	*to frighten*
*ponuq	*be full*	*pa[ka]-ponuq-i-	*to fill*

Did Proto Oceanic **pa[ka]-* also occur with transitive verbs? It seems that it probably did not. Although reflexes of **pa[ka]-* occur with transitive verbs in a number of languages, the functions differ. Table 6.4 gives the types of uses found with **pa[ka]-* reflexes with transitive verbs and the languages in which they occur.

Table 6.4: **pa[ka]-* reflexes with transitive verbs

(i) increased effort by the agent participant
Mangap-Mbula, North-East Ambae (one form), Boumaa Fijian
(ii) causative use
Tamambo (one form), Tinrin, Boumaa Fijian (rare)
(iii) rearranges the valency
Longgu
(iv) agent participant tries or pretends to carry out event
Wayan Fijian

The possible functions of **pa[ka]-* with transitive verbs on the basis of the Oceanic reflexes are the causative use or the use of denoting increased effort on the part of the agent participant. As described in Chapter 5, section 5.2.2, Harrison (1982) reconstructs as the original function of **pa[ka]-* that of indicating increased effort by the agent participant. Harrison's (1982: 198-199) evidence that the "increased effort" use of **pa[ka]-* reflexes is the older use comes from the fact that modern forms with this use appear to be more conservative than those with the causative use. For example, in Bauan Fijian the following three forms of the verb *rai* 'to see' occur:

rai-ci	*to see sth*	'PLAIN' TRANSITIVE
vaka-rai-ci	*to inspect sth*	INCREASED-EFFORT *VAKA-*
vaka-rai-taki	*to show s.o.*	CAUSATIVE *VAKA-*

The form *rai-ci* 'to see sth' is the 'plain' transitive form with the *-ci* allomorph of the transitive suffix. The form *vaka-rai-ci* 'to inspect sth' takes the prefix *vaka-* to indicate increased effort on the part of the agent participant. The third form, *vaka-rai-taki* 'to show s.o.', takes the *vaka-* prefix to derive a causative verb. It is the "increased effort" form with *vaka-* that takes the apparently conservative transitive ending *-ci*, whereas the causative form with *vaka-* takes the productive transitive ending *-taki*. Another possible analysis of these three Bauan Fijian forms is that the two *vaka-* forms are derived from different forms. The form *vaka-rai-ci* 'to inspect sth' comprises the prefix *vaka-* attached to the transitive verb form *rai-ci* 'to see sth', whereas the form *vaka-rai-taki* 'to show s.o.' may in fact derive from the intransitive form *rai* 'to see'. The apparent conservatism of the transitive ending with *vaka-rai-ci* 'to inspect sth' simply reflects the conservatism

of the 'plain' transitive form *rai-ci* 'to see sth', rather then being a conservative form in itself[4].

But was either function present in Proto Oceanic? Both actually seem to be post-Proto Oceanic developments. In only a few languages do reflexes of **pa[ka]-* occur with transitive verbs and in fewer still with a causative use. It seems probable that in Tinrin *fa-* has been extended in use from intransitive to transitive verbs, and in Tamambo and Boumaa Fijian perhaps such an extension in function is just beginning. The "increased effort" uses of **pa[ka]-* reflexes are also taken to be independent developments in the daughter languages, a not implausible hypothesis considering Comrie's (1985: 330) statement that there is a "recurrent relationship between causative and intensive" functions.

If it were indeed the case that Proto Oceanic **pa[ka]-* did not occur with transitive verbs, then it must have been a use which was lost in pre-Proto Oceanic. In many non-Oceanic Austronesian languages, including Seediq (Formosan), Bisayan (Philippines) and Ledo and Tukang Besi (Indonesia), there are cognates of **pa[ka]-* which can be used as causative prefixes with transitive verbs. The loss of this use is a topic which needs further research, though it seems likely that an examination of the apparent reorganisation of the verbal system which apparently occurred in pre-Proto Oceanic may reveal an explanation.

A second commonly found function of **pa[ka]-* reflexes in Oceanic languages is the multiplicative one, and forms of numerals taking **pa[ka]-* with this function can be reconstructed for Proto Oceanic.

*rua	*be two*	*paka-rua	*do/happen twice*
*tolu	*be three*	*paka-tolu	*do/happen three times*

In several languages, including Banoni (MM), Tinrin and Mokilese and Kosraean (Mic), ordinal numbers are derived with reflexes of **pa[ka]-*, however, it is not clear how ordinal numbers were formed in Proto Oceanic. Ordinal numbers across Oceanic languages are formed by several different structures. Lynch, Ross and Crowley (in press: cht.4) reconstructs the formation of ordinal numbers in Proto Oceanic by suffixing the 3sg possessive suffix **-ña* to the numerals, thus **tolu-ña* 'third' was derived from **tolu*

[4] The same type of analysis may also hold for Harrison's (1982: 199) Micronesian examples. See Chapter 5, section 5.2.2.

'three'. Languages reflecting such a derivation include Mussau (St.M), Arosi (SES), Tamambo and Xârâcúú (SO). In several Papuan Tip languages, including Saliba and Sinaugoro, ordinal numbers are formed with both the reflex of **pa[ka]-* and the reflex of the 3sg possessive suffix **-ña*. Another structure which may be reconstructable for Proto Oceanic is found in Fijian languages, where ordinal numbers are formed from numerals with a prefix reflecting **ika-*, and cognates of this derivation are found in non-Oceanic languages. Exactly how many of these derivational processes were present in Proto Oceanic is something which needs further research. However, it seems likely that ordinals formed with **pa[ka]-* are independent innovations in the different languages, probably developing from the multiplicative use.

The use of **pa[ka]-* reflexes to derive verbal modifiers appears to be reconstructable for Proto Oceanic as it is found in several modern languages from different subgroups. It is possible that this use of **pa[ka]-* was restricted to U-stative verbs, as it is U-stative types meanings that occur with this use of **pa[ka]-* reflexes in modern languages. A more detailed study of verbal modifiers in Proto Oceanic is needed to determine more about this use of **pa[ka]-*.

Three other uses of **pa[ka]-* reflexes given in Table 6.2 are the associative, attributive and delocutive. All three of these functions are widespread in Fijian and Polynesian languages, and at first glance appear to be innovations of Proto Central Pacific, the ancestor of these languages. However, such uses are also found with Teop *vaa-*. None of these uses of *vaa-* are very productive and the associative and delocutive uses are found with only a single form each (Ulrike Mosel pers.comm.). But does their presence in Teop mean that these functions are also reconstructable for Proto Oceanic **pa[ka]-*? The Teop data suggest this to be the case, but before such a reconstruction can be made more data are needed. If these uses of **pa[ka]-* did occur in Proto Oceanic it is likely that they were lexically limited, as in Teop. A preliminary dictionary search did not reveal examples of these uses in other languages. I think the Teop data is indicative of the fact that such uses of **pa[ka]-* reflexes may be more widespread in Oceanic, but have perhaps not been recognised as uses of the so-called "causative" prefix.

6.4 CAN A DIFFERENCE BETWEEN *PA- AND *PAKA- BE RECONSTRUCTED?

Previously the same function has been reconstructed for both Proto Oceanic **pa-* and **paka-*, but the presence of two forms suggests that there may once have been a difference in function. On the basis that Oceanic languages generally reflect one or other form, but not both, Lynch, Ross and Crowley (in press: cht 4) infer that the constrast between them may have been lost, or at least was not productively in use, before the break-up of Proto Oceanic, but can any remnants of a possible distinction be reconstructed?

6.4.1 LANGUAGES REFLECTING BOTH *PA- AND *PAKA-

While the majority of Oceanic languages reflect only one of the two forms **pa-* and **paka-*, several languages have reflexes of both. One of these is Teop. In Teop the causative prefix has two forms *va-* and *vaa-*, possibly reflecting **pa-* and **paka-* respectively, as Proto Oceanic **k* has been lost between vowels in Teop (see Ross 1988: 268). It is also possible that both are reflexes of **pa-*, *vaa-* having undergone vowel lengthening. The allomorphy of Teop *va-* and *vaa-* is syntactically determined. The form *vaa-* is used to derive causatives from active and inactive intransitive verbs, with which the S argument of the intransitive clause corresponds to the O argument of the causative transitive clause (Mosel & Spriggs n.d.: 19-20). This derivation is demonstrated by (21) and (22), (21) showing the use of the verb *hana* 'hang' and (22) showing its causativised form. Examples (23) and (24) show further uses of *vaa-*.

21) [a ravarava]$_S$ na hana rori te-a vea
ART clothes RL hang IMP.3pl on-ART line
The clothes are hanging on the line.

(Mosel & Spriggs n.d.: 19)

22) [e-naa]$_A$ na **vaa**-hana [a ravarava]$_O$ te-a roava
ART-1sg RL CAUS-hang ART clothes in-ART sun
I hung the clothes out to dry in the sun.

(Mosel & Spriggs n.d.: 19)

23) goe tea **vaa**-beera [o hoi]$_O$
do.not COMP CAUS-big ART basket
Don't enlarge the basket (make it too big).

(Mosel & Spriggs n.d.: 20)

24) **vaa**-ani [a beiko]$_O$
CAUS-eat ART child
Feed the child!

(Mosel & Spriggs n.d.: 20)

The prefix *va-*, on the other hand, is prefixed to stative verbs when they function as verbal modifiers (Mosel and Spriggs n.d.: 20-21), as in the following sentences.

25) e Sovavi na aheahe **va**-mararae
ART S. RL sing CAUS-happy
Sovavi sang happily.

(Mosel & Spriggs n.d.: 20)

26) goe tea vin **va**-beera o hoi
do.not COMP weave CAUS-big ART basket
Don't weave the basket too big.

(Mosel & Spriggs n.d.: 20-21)

In Nakanai Proto Oceanic **pa-* and the reciprocal prefix **paRi-* have merged as the prefix *vi-* which derives both causative and reciprocal forms. Nakanai *vi-* has two allomorphs, *va-* and *vi-*. The form *va-* occurs with verb stems beginning with a vowel or the consonants *h* and *l*, and with bound motion and location verbs. The form *vi-* occurs elsewhere (Johnson 1980: 136-137). Under (A) in Table 6.5 are examples of causative *vi-*. Proto Oceanic **pa[ka]-* is reflected in Nakanai as the prefix *vaka-* which derives multiplicative forms from numerals (Johnson 1980: 184). Examples of this are given under (B) in Table 6.5. Thus in Nakanai Proto Oceanic **pa-* is reflected as one allomorph of the prefix *vi-* which derives causative forms, and **paka-* is reflected as the prefix *vaka-* which derives multiplicative forms.

Table 6.5: Reflexes of **pa-* and **paka-* in Nakanai

(A) causative *vi- ~ va-*			
sivo	*climb down*	vi-sivo-	*unload sth, help s.o. down*
uru	*great*	va-uru-	*enlarge sth*
mahuli	*alive*	vi-mahuli-	*heal s.o.*
(B) multiplicative *vaka-*			
i-lua	*two*	vaka-lua	*twice*
i-lima	*five*	vaka-lima	*five times*[5]

(data from Johnson 1980: 136-137 & 184)

Several languages of Vanuatu also reflect both **pa-* and **paka-*. In a few languages there is a functional difference between the reflexes of the two forms. The forms reflecting **pa-* derive causative verbs and the reflexes of **paka-* derive multiplicatives from numerals and other quantifiers. This is shown by the examples given in Table 6.6.

Table 6.6: Causative **pa-* and multiplicative **paka-* in Vanuatu languages

	causative		multiplicative	
Volow	v-eh	*to save*	vag-ro	*twice*
	vea-tgir	*to stand sth up*	vag-soso	*often times*
Mosin	va-es	*to save*	vag-towal	*once*
	va-sag-er	*to make sit*	vag-ru	*twice*
Lakon	va-tka	*to hang tr.*	vag-gapra	*ten times*
			vag-wih	*how many times*
Lo	va-hem-ig	*to hang tr*	vaga-jia	*once*
			vaga-via	*so many times*

(data from Codrington 1885)

[5] Cardinal numbers in Nakanai comprise a prefix *i-* and a bound numeral root.

Not all Vanuatu languages which reflect both **pa-* and **paka-* show such a clear cut distinction in function. However, the pattern of usage found in other Vanuatu languages suggests that this distinction may have been present in their ancestor language. In Table 6.7 the forms of the prefix used to derive causatives and the one used to derive multiplicatives in several Vanuatu languages are given. From these data six types of languages can be established on the basis of **pa-* and **paka-* reflexes and their functions. The first type (A) is that already mentioned where **pa-* is reflected as a causative prefix and **paka-* as a multiplicative prefix. In type B languages, Tamambo only in these data, the reflexes of both **pa-* and **paka-* derive causative verbs, but only the **paka-* reflex derives multiplicatives. In type C languages, like Merlav and Pak, the reflex of **pa-* derives both causatives and multiplicatives and the reflex of **paka-* derives multiplicatives only. Type D languages are those like Mota, where both **pa-* and **paka-* reflexes can be used with both functions. In type E languages, like Lakon and Arag only **pa-* is reflected and it derives both causatives and multiplicatives, and in languages like North-East Ambae and Maewo (type F) only **paka-* has been retained and it is used in both functions. It can be seen from this distribution of forms and functions that if a reflex of **paka-* occurs at all it is used to form multiplicatives. The opposite correlation also holds, and if a language has a reflex of **pa-* it is used to form causatives.

Table 6.7: Causatives and multiplicatives in Vanuatu languages

language	causative prefix	multiplicative prefix
(A) reflexes of **pa-* have causative use and reflexes of **paka-* have multiplicative use		
Motlav	va-, ve-	vag-
Lo	va-	vaga-
Mosin	va-	vag-
Vuras	va-, vi-	vag-
Alo Teqel	v-	vag-
Gog	va-	vaga-, vago-
Bay of SS. Philip & James	va-	vaga-

Table 6.7 (cont)

language	causative prefix	multiplicative prefix
(B) reflex of *pa- has causative use and reflex of *paka- has both causative and multiplicative uses		
Tamambo	va-, vaha-	vaha-
(C) reflexes of *pa- have both causative and multiplicative uses and reflexes of *paka- have multiplicative use		
Merlav	va-	va-, vaga-
Pak	va-, ve-	vag-, va- /_w[6]
Leon & Sasar	va-, ve-	va-, vag-
(D) reflex of *pa- has both causative and multiplicative uses and reflex of *paka- has both causative and multiplicative uses		
Mota	va-, vaga-	vaga-, va-
(E) *pa- only reflected, with both causative and multiplicative uses		
Lakon	va-	va-
Norbarbar	va-	va-
Arag	va-	va-
(F) *paka- only reflected, with both causative and multiplicative uses		
Maewo	vaga-	vaga-
N-E Ambae	vaga-	vaga-
Fate	baka-	baka-
Sesake	vaka-, paka-	paka-

(data from Codrington 1885, Jauncey 1997, Hyslop 1998)

The above data suggest that in the immediate common ancestor of the languages of central and northern Vanuatu, *pa- was the general causative prefix and *paka- was used to form multiplicatives from numerals. Such a distinction is retained in some languages, and the systems in other languages can be seen to be derived from such a pattern through the generalisation (partial or complete) of one prefix over the other.

Although Teop, Nakanai and some of the Vanuatu languages are similar in terms of reflecting both Proto Oceanic *pa- and *paka- with different functions, the correlation

[6] Pak is possibly a type A language, with a causative prefix *va-* and a multiplicative prefix *vag-*, with the multiplicative form *va-* being a phonologically-conditioned allomorph of *vag-*.

between the forms and functions is always not the same. In Nakanai and the Vanuatu languages the reflexes of **pa-* are the causative derivational prefixes and the **paka-* reflexes form multiplicatives. However, Teop apparently reflects **paka-* as the causativising prefix *vaa-* and the reflex of **pa-*, the prefix *va-*, derives adverbials from stative verbs. The system of **pa-* and **paka-* reflexes in Nakanai and the Vanuatu languages is likely to be a retention from Proto Oceanic. This raises the question of whether **paka-* was indeed restricted to occurring with numerals, or whether numerals were simply one set of a larger word class with which **paka-* occurred, and if this were the case what other forms were a part of that class?

6.4.2 The multiplicative function

The multiplicative function is clearly reconstructable for Proto Oceanic **pa[ka]-*, but can it be shown to have been associated with **paka-* rather then **pa-*? Nakanai and the Vanuatu languages just described suggest that this was the case. Reflexes of **paka-* in other Oceanic languages including: Sinaugoro; a relic form in Kwaio; Wayan Fijian; and Tokelauan (Pn) also have the multiplicative function, and in languages where **pa-* reflexes derive multiplicatives, such as Gela (SES) and Nadrogā (Fij), no reflex of **paka-* has been retained.

If Proto Oceanic **paka-* (but not **pa-*) were used to derive multiplicatives from numerals and quantifiers, was it restricted to this function alone, or were numerals just one set of a larger class of forms which took **paka-*? Lynch, Ross and Crowley (in press: cht 4) state that Proto Oceanic numerals were adjectival verbs, a class whose members could function as U-stative verbs and post-nominal modifiers. If numerals were part of a larger subclass of U-stative verbs it is possible that **paka-* also occurred with other U-stative verbs in Proto Oceanic. The fact that numerals would have been a semantically distinct class of such verbs and had developed the specialised multiplicative function by Proto Oceanic times would explain why it is this function which is so clearly reconstructable on the basis of Oceanic data.

6.4.3 **PAKA-* cognates with stative verbs in non-Oceanic languages

Evidence that Proto Oceanic **paka-* (but not **pa-*) originally occurred with U-stative verbs is found in non-Oceanic Austronesian languages. A few non-Oceanic languages have cognates of both **pa-* and **paka-*, and the functional distinction between

them is indicative of the type of distinction that may have been inherited into Proto Oceanic. The four languages considered here are the Formosan language Pazeh, and three languages of Indonesia, Muna, Tukang Besi and the Ledo dialect of Kaili. Table 6.8 gives the prefixes from these languages that are cognate with Proto Oceanic **pa-* and **paka-*[7].

Table 6.8: Some non-Oceanic cognates of **pa-* and **paka-*

Pazeh	Muna	Tukang Besi	Ledo	Proto Oceanic
pa-	fo-	pa-	pa-	*pa-
paka-	feka-	hoko-	paka-	*paka-

In Pazeh there are two causative prefixes, *pa-* and *paka-*, and Blust (1999: 347) states that "there is an almost perfect correlation of *pa-* with dynamic verbs and of *paka-* with stative verbs". Examples of these two prefixes are given in Table 6.9.

Table 6.9: Causative prefixes in Pazeh

(a) *paka-* with stative verbs			
asikis	*painful*	paka-asikis	*to cause pain, hurt*
baged	*fat, obese*	paka-baged	*to fatten (as a pig)*
lamik	*cool, cold*	paka-lamik	*to let sth cool off (eg. tea)*
risilaw	*white*	paka-risilaw	*to whiten, make sth white*
ma-hatan	*happy*	paka-hatan	*to make s.o. happy*
m-akux	*hot*	paka-akux	*to heat, warm up*
ma-ngesen	*afraid*	paka-ngesen	*to frighten*
ma-bini	*full*	paka-ma-bini	*to fill*

[7] The Muna and Tukang Besi forms are not such clear cognates of Proto Oceanic **pa-* and **paka-*. The differences in the vowels probably reflect the remnants of a vowel harmony system. The difference in the initial consonants of the Tukang Besi forms can be explained by the fact that **p* is reflected as both *p* and *h* in Tukang Besi, with *h* occurring when the segment is further away from the stressed syllable (Mark Donohue pers.comm.).

Table 6.9 (cont)

(b) *pa-* with dynamic verbs

me-ken	*to eat*	pa-ken, pa-kan	*to feed*
mu-dader	*choke on sth*	pa-dader	*cause to choke*
mi-kita	*to see, look at*	pa-kita	*show s.o.*
me-depex	*to read, study*	pa-depex	*to make s.o. read, study*
mu-languy	*to swim*	pa-languy	*let s.o. swim*
mu-talek	*to cook*	pa-talek	*ask/tell s.o. to cook*
mu-xatis	*to sneeze*	pa-xatis	*make s.o. sneeze*

(data from Blust 1999: 347-348)

Muna and Tukang Besi are quite closely related and are spoken on islands which lie to the southeast of Sulawesi. Both these languages have three causative prefixes, two of which appear to be cognate with Proto Oceanic **pa-* and **paka-*. Muna has three prefixes *feka-*, *fo-* and *fe-* that derive causative verbs. The two prefixes, *fo-* and *feka-*, differ in the type of verb roots with which they occur, *feka-*, the factitive prefix, occurs with stative intransitive verbs and *fo-*, the causative prefix, with dynamic intransitive verbs and transitive verbs (van den Berg 1989: 197-200)[8]. This is demonstrated by the lists of verbs in Table 6.10 which give the form of the base verb and the derived causative form.

The verbs in Table 6.10 are prefixed with the 1sg subject markers. Muna has three verb classes which take slightly different sets of subject markers (van den Berg 1989: 52-57), which is why three different forms are found occurring with the verbs given below. All verbs derived with *feka-* or *fo-* belong to what is called the *ae*-class, and thus in 1sg always take the subject marker *ae-* (van den Berg 1989: 198-199).

[8] Muna's third causative prefix *fe-* is called a locutional causative by van den Berg (1989: 201-202). The prefix *fe-* is used with transitive verbs only and indicates that the causer has interacted verbally with the causee, conveying meanings such as 'to ask', 'to request' or 'to command'. The verb form in sentence (a) is the locutional causative form of the verb *ae-buri* 'to write'.

a) ae-**fe**-buri-e
1sR-**L.CAUS**-write-it
I ask that it be written.

(van den Berg 1989: 201)

Table 6.10: Causative derivations in Muna

***feka-* with stative verbs**			
ao-nggela	*be clean*	ae-feka-nggela	*clean*
a-mate	*die, be dead*	ae-feka-mate	*kill*
ae-ware	*broad*	ae-feka-ware	*broaden*
ao-ghosa	*hard, strong*	ae-feka-ghosa	*harden*
***fo-* with intransitive verbs**			
a-futaa	*laugh*	ae-fo-futaa	*let/make laugh*
a-suli	*return, go home*	ae-fo-suli	*return sth, give back, bring back*
ao-lodo	*sleep*	ae-fo-lodo	*make sleep, put to bed*
ae-ngkora	*sit*	ae-fo-ngkora	*make sit, put down*
***fo-* with transitive verbs**			
a-fumaa	*eat*	ae-fo-fumaa	*feed*
ae-ada	*borrow*	ae-fo-ada	*lend*
ae-ala	*take*	ae-fo-ala	*cause to take*
ae-buri	*write*	ae-fo-buri	*cause to write*

(data from van den Berg 1989: 198-199)

Examples (27), (28) and (29) show the use of these prefixes.

27) ome-**feka**-mate manu
2SR-FACT-die chicken
You killed a chicken.

(van den Berg 1989: 198)

28) ae-**fo**-suli kantalea
1SR-CAUS-return lamp
I return the lamp.

(van den Berg 1989: 199)

29) a-**fo**-fumaa-ane ghoti o dahu
1SR-CAUS-eat-3sg rice ART dog
I feed rice to the dog.

(van den Berg 1989: 200)

Like Muna, Tukang Besi has three causative prefixes, two of which which seem to be cognate with Proto Oceanic **pa-* and **paka-*. One is the general causativiser *pa-* which can be used to causativise almost any verb, transitive or intransitive, and the other is the factitive prefix *hoko-* which is used to causativise only non-dynamic verbs (Donohue 1995: 201) [9]. In (30) the non-dynamic verb *mate* 'dead' occurs in its underived form and in (31) it is causativised by the prefix *hoko-*. Example (32) demonstrates the use of the underived dynamic verb *wila* 'go' which is causativised by the prefix *pa-* in (33).

30) no-mate-mo na ompu-su
3R-dead-PF NOM grandparent-1sg.POSS
My grandparent is dead.

(Donohue 1995: 206)

31) no-**hoko**-mate-'e-mo na ompu-su
3R-FACT-dead-3OBJ-PF NOM grandparent-1sg.POSS
They killed my grandparent.

(Donohue 1995: 206)

32) no-wila na anabou i jambata
3R-go NOM father OBL jetty
The father went to the jetty.

(Donohue 1995: 208)

33) no-**pa**-wila te anabou i jambata na ama
3R-CAUS-go CORE child OBL jetty NOM father
The father sent the child to the jetty.

(Donohue 1995: 208)

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[9] The third causative prefix in Tukang Besi is the requestive *hepe-*. This prefix occurs with intransitive and transitive active verbs and indicates that the causer requests someone to carry out an action for the causer's benefit (Donohue 1995: 201). The function of *hepe-* is shown by sentences (b) and (c). This form appears to be an innovation in Tukang Besi.

b) no-wila na ana
3R-go NOM child
The child goes.

(Donohue 1995: 213)

c) ku-**hepe**-wila (na iaku) di ana
1sg-**REQ**-go NOM I OBL child
I ask the child to go.

(Donohue 1995: 213).

Donohue (1995: 201-213) also notes a semantic difference between these two prefixes. The prefix *hoko-* indicates high exertion or effort on the part of the causer and that the change brought about is complete and permanent. The prefix *pa-*, on the other hand, does not imply permanency or complete change and the effort of the causer is not so high. The semantic difference between these two prefixes is shown by (34) and (35). In these examples both *hoko-* and *pa-* are attached to the non-dynamic verb *leama* 'good', and the differences in meaning are given in parentheses under the free translation.

34) no-**hoko**-leama-ngenke te ikaka-su
3R-FACT-good-COMIT CORE elder.sibling-1sg.POSS
They improved it with my elder brother.
(it is now perfect, and can be expected to remain in that state)
(Donohue 1995: 203)

35) no-**pa**-leama-ngenke te ikaka-su
3R-CAUS-good-COMIT CORE elder.sibling-1sg.POSS
They fixed it with my elder brother.
(it's better, but not perfect, and maybe only a temporary job)
(Donohue 1995: 203)

A third Indonesian language which has **pa-* and **paka-* cognates is the Ledo dialect of Kaili, spoken in central Sulawesi. In Ledo there are a number of ways of derving causatives, two of which are the prefixes *pa-* and *paka-*. The prefix *pa-* derives causative verbs from a number of intransitive verbs (Evans 1996: 178-179), as shown by (36) and (37) below.

36) i Pina na-pola ri sikola
PM Pina RL-arrive PREP school
Pina arrived at school.
(Evans 1996: 179)

37) i Tarsaa nom-**pa**-pola kareba ri sikola
PM Tarsaa RL-CAUS-arrive news PREP school
Tarsaa caused the news to arruve at school.
(Evans 1996: 179)

The prefix *paka-* derives causative verbs from adjectives (Evans 1996: 181), as shown by sentences (38) and (39). As can be seen from (38) adjectives in Ledo can apparently be used verbally, suggesting that the functional distinction between *pa-* and *paka-* in Ledo is

parallel to that between the causative and factitive in Muna and Tukang Besi, that is occurrence with dynamic and stative verbs, respectively.

38) nadua ia
RL-sick 3sg
He's sick.

(Evans n.d.)

39) topeule nom-**paka**-dua ia
witch RL-CAUS-sick 3sg
A witch caused him to be sick.

(Evans n.d.)

All four of these non-Oceanic languages provide evidence suggesting that a functional disitnction between **pa-* and **paka-* inherited by Proto Oceanic may have been that dynamic verbs took **pa-* and stative verbs took **paka-*.

6.4.4 The Proto Austronesian system

On the basis of prefixes reflecting **pa-* and **paka-* in non-Oceanic languages like those presented in the previous section, Blust (1999: 356) proposes that the same kind of grammatical distinction was present between **pa-* and **paka-* in Proto Austronesian. That is, Proto Austronesian **pa-* formed the causative of dynamic verbs and **paka-* the causative of stative verbs.

Zeitoun and Huang (2000) propose that while Blust's (1999) reconstruction is essentially correct, **paka-* is better analysed as a bi-morphemic form comprising causative **pa-* and stative **ka-*. Zeitoun and Huang (2000) present data from several Formosan languages, inlcuding Mayrinax, Atayal, Paran Seediq, Paiwan, Mantauran Rukai and Pazeh, which provide evidence for the reconstruction of a prefix **ka-* that occurred with the non-finite forms of stative verbs[10]. In most Formosan languages there is a morphological distinction between dynamic and stative verbs and between finite and non-finite forms. Thus finite dynamic verbs are marked by *-um-* (or related forms) and non-finite dynamic forms are unmarked. Finite stative verbs are marked by *ma-*, or are unmarked, and stative non-finite verbs are marked by *ka-*. The non-finite forms of verbs

[10] As far as I know reflexes of **ka-* are not found in non-Formosan Asutronesian languages, but I did not do a thorough search for cognates.

are used in various constructions, including the causative, imperative and irrealis (Zeitoun & Huang 2000: 395-407). Table 6.11 demonstrates this morphological alternation with stative verb forms from four Formosan languages in each of the four categories[11]. As can be seen the finite verb forms are either unmarked, as with Pazeh *baged* 'fat', or are marked with *ma-* (or *m-*), as with Pazeh *ma-taru* 'big'. The non-finite verb forms are often marked with *ka-*, as with Rukai *amo-ka-Lapa'a* 'will be hot', the irrealis form of *ma-Lapa'a* 'hot'. The marker of irrealis mood in Rukai is *amo-*.

Table 6.11: Finite and non-finite forms of stative verbs in Formosan languages

finite stative verb forms		non-finite stative verb forms		
Pazeh				
baged	*fat*	CAUS	pa-ka-baged	*fatten*
		IMP	pa-ka-baged	*make fat*
		IRR	ka-baged-ay	*will be fat*
m-akux	*hot*	CAUS	pa-ka-akux	*warm up*
		IMP	(pa-)ka-akux	*warm up*
		IRR	ka-(a)kux-ay	*will be hot*
ma-taru	*big*	CAUS	pa-ka-taru	*make big(ger)*
		IMP	(pa-)ka-taru	*make big(ger)*
		IRR	ka-taru-ay	*will be big*
Atayal				
kithu'	*fat*	CAUS	pa-ka-kithu'	*fatten*
		IMP	(pa-)ka-kithu'	*make fat*
		IRR	pa-ka-kithu'	*will be fat*
ma-kiluh	*hot*	CAUS	pa-ka-kiluh	*warm up*
		IMP	(pa-)ka-kiluh	*warm up*
		IRR	pa-ka-kiluh	*will be hot*
rahuwal	*big*	CAUS	(pa-)ka-rahuwal	*make big(ger)*
		IMP	(pa-)ka-rahuwal	*make big(ger)*
		IRR	(pa-)ka-rahuwal	*will be big*

[11] The abbreviations used in Table 6.11 are: CAUS - causative; IMP - imperative and IRR - irrealis.

Rukai				
ma-votolo'o	*fat*	CAUS	pa-ka-votolo'o	*fatten*
		IMP	(pa-ka-votolo'o)	*make fat*
		IRR	amo-ka-votolo'o	*will be fat*
ma-Lapa'a	*hot*	CAUS	pa-ka-Lapa'a	*warm up*
		IMP	(pa-ka-Lapa'a)	*warm up*
		IRR	amo-ka-Lapa'a	*will be hot*
Seediq				
m-tilux	*hot*	CAUS	(p-)ku-tilux	*warm up*
		IMP	(p-)k(u)-tilux	*warm up*
		IRR	mp-k(u)-tilux	*will be hot*
paru	*big*	CAUS	p-k(u)-paru	*make big(ger)*
		IMP	(p-)k(u)-paru	*make big(ger)*
		IRR	mp-k(u)-paru	*will be big*

(data from Zeitoun & Huang 2000: 410)

It is on the basis of these forms and others that Zeitoun and Huang (2000) reconstruct **ka-* as a prefix that occurred with the non-finite forms of stative verbs. One occurrence of non-finite verbs was in causative constructions which gave the prefix sequence of **pa-ka-* with stative verbs.

6.4.5 **KA-* IN PROTO OCEANIC

There is also some evidence of a prefix **ka-* in Proto Oceanic which occurred with verbs denoting states. A few verbs can be reconstructed for Proto Oceanic with an apparent prefix **ka-*, as shown in Table 6.12.

Table 6.12: Proto Oceanic *ka-

gloss	base form	*ma- form	*ka- form
left	_	*ma-wiRi	*ka-wiRi
right	*wanan	*ma-wanan	*ka-wanan
far away	*sauq	*ma-sauq	*ka-sauq
dry	*Raŋo	*ma-Raŋo	*ka-Raŋo
rain	*dapuR	_	*kadapuR (Ross 1995a)
green	_	*marawa	*[ma]karawa[12] (Ross 1999)

As can be seen from Table 6.12 there are six verbs that can be reconstructed for Proto Oceanic with an apparent prefix *ka-. For these verbs a form with *ma- and/or an unmarked form are also reconstructable, but there was apparently no difference in meaning between the different forms. Of relevance here is that there appear to be traces in Proto Oceanic of a system in which verbs denoting states had forms with the prefixes *ma- and *ka-. In Proto Oceanic neither prefix was productive. It is shown in Chapter 7, section 7.2.2 that quite a number of verbs denoting states in Proto Oceanic can be reconstructed with and without *ma-, but that no clear derivational meaning of *ma- can be reconstructed. The prefix *ka- in Proto Oceanic appears to have been a relic prefix with only a handful of verbs.

6.4.6 The development of *PAKA-

Section 6.4.4 demonstrated that in Proto Austronesian the causative *pa- occurred in the sequence *pa-ka- with stative verbs, and that *ka- was a separate prefix that occurred with non-finite forms of stative verbs. Proto Oceanic shows traces of this *ka- prefix, which is reconstructable with a few verbs denoting states. Proto Austronesian *ka- is also retained in Proto Oceanic as part of the 'causative' prefix *paka-, but there is no evidence to suggest that the sequence *paka- in Proto Oceanic was bi-morphemic. Rather it seems that *pa-ka- had been reanalysed as a mono-morphemic prefix prior to

[12] Ross (1999: 53-54) reconstructs the forms *karawa and *ma-karawa for 'green'. However, reflexes in Southeast Solomonic and Micronesian languages suggest a form *ma-rawa. Thus both forms may be derived from an unreflected base form *rawa (Ross 1999: 53).

Proto Oceanic. That in many non-Oceanic languages the Proto Austronesian sequence of **pa-* causative plus **ka-* non-finite stative has also been reanalysed as a mono-morphemic form cognate with **paka-* suggests that such a change occurred at some post-Proto Austronesian stage and that **paka-* was inherited by Proto Oceanic as a mono-morphemic prefix.

Thus Proto Oceanic had two prefixes **pa-* and **paka-*. But what was the difference between them in Proto Oceanic? It is clear on the basis of modern reflexes of these forms in several Vanuatu languages and in Nakanai that **paka-* (and not **pa-*) derived multiplicative forms from numerals. The non-Oceanic evidence suggests that this use of **paka-* was once part of a wider distribution, where **paka-*, but not **pa-*, occurred with verbs denoting states. Such verbs in Proto Oceanic would have been U-stative. Therefore, it seems likely that in pre-Proto Oceanic U-stative verbs were causativised with **paka-* and Actor subject verbs with **pa-*. U-process verbs took **-i* with a causative derivation and there is no evidence that they also took **pa[ka]-*, although some Undergoer subject verbs were probably not strictly U-stative or U-process. This distribution of **paka-* and **pa-* was obviously falling into disuse by the time Proto Oceanic broke-up as it is not reflected in modern Oceanic languages.

6.5 Proto Oceanic **PA-* and **PAKA-*

In summary, Proto Oceanic had two prefixes, **pa-* and **paka-*, which derived causative verbs from intransitive verbs. On the basis of external evidence it is likely that in pre-Proto Oceanic **pa-* occurred with Actor subject verbs and **paka-* with U-stative verbs. However, this was no longer a productive functional distinction in Proto Oceanic, and in most daughter languages one prefix has been extended in use and the other has been lost. Proto Oceanic **paka-* also had the specialised use of deriving multiplicatives, such as **paka-rua* 'do/happen twice' from **rua* 'two' and **paka-tolu* 'do/happen three times' from **tolu* 'three'. This specialised use of **paka-* with numerals, a subclass of U-statives, had developed at some stage before Proto Oceanic and is the one distinction between **pa-* and **paka-* which was clearly retained in Proto Oceanic and into some of the daughter languages. Proto Oceanic **pa[ka]-* could also derive verbal modifiers, such as **patuR pa[ka]-qitik* (weave CAUS-small) 'weave small'. It is likely that this was originally a function of **paka-*, and not of **pa-*, as such verbal modifiers were probably derived from U-stative verbs. However, such a distinction may not have been fully present in Proto Oceanic.

7 **ma- and *ta-*

7.1 INTRODUCTION

Two prefixes, **ma-* and **ta-*, are reconstructed for Proto Oceanic as stative verb derivatives, with **ta-* also indicating that the state came about spontaneously (Pawley 1972: 38-39, 45). These two prefixes are generally seen to have had the same detransitivising function: that of deriving intransitive forms with a patient participants expressed as S. In this chapter it is proposed that Proto Oceanic **ma-* had two functions: (a) to derive an intransitive Undergoer subject verb from a transitive verb; and (b) to derive an Undergoer subject verb that indicated a property. Proto Oceanic **ta-* also derived intransitive Undergoer subject verbs from transitive verbs, but it is proposed that the basic function of **ta-* was to indicate that the event came about spontaneously.

Modern Oceanic languages generally reflect either **ma-* or **ta-* and where languages reflect both they are often identical or very similar in function. Table 7.1 shows Oceanic reflexes of **ma-* and **ta-*.

Table 7.1: Reflexes of Proto Oceanic **ma-* and **ta-*

subgroup	reflexes of **ma-*	reflexes of **ta-*
NNG	Bariai *ma-*	
	Mangap-Mbula *m-*	—
	Manam *ma-*	Manam *ta-*
	Kairiru *ma-*	—
PT	—	Saliba *ta-*
	Mekeo *ma-*	—
MM	Nakanai *ma-*	Nakanai *ta-*
	—	Siar *ta-*
	—	Taiof *ta-*
	—	Banoni *ta-*
	—	Sisiqa *ta-*
	—	Roviana *ta-*
	—	Hoava *ta-*
St. M	—	Mussau *ta-*
SES	—	Gela *ta-*
	Longgu *ma-*	Longgu *a-*
	Kwaio *ma-*	Kwaio *a-*
	Arosi *ma-*	—
SO	Tamambo *ma-*	—
	N-E Ambae *ma-*	N-E Ambae *ta-*
	–	Southeast Ambrym *ta-*
	Paamese *ma-*	Paamese *ta-*
	Lewo *ma-*	Lewo *ta-*
	Xârâcùù *mê-*	—
Fij	—	Nadrogā *ta-*
	Wayan *ma-*	Wayan *ta-*
Pn	Tongan *ma-*	—
	Samoan *ma-*	—
	Tokelau *ma-*	—

7.2 THE *MA- PREFIX

7.2.1 *MA- REFLEXES IN OCEANIC LANGUAGES

The Proto Oceanic prefix **ma-* is reflected in modern Oceanic languages in two ways: a) as a semi-productive valency-decreasing prefix; and b) as a fossilised prefix occurring as the initial segment of Undergoer subject verbs denoting properties.

Valency-decreasing reflexes of **ma-* derive intransitive verbs from transitive verbs with which the participant expressed as the O argument of the transitive form and the participant expressed as the S argument of the intransitive form have the same semantic role with respect to the verb. This is demonstrated by (1) and (2) from Tamambo (SO). In (1) the verb *bila* 'shatter' is used transitively with a patient participant, *glas* 'glass', expressed as O. This participant is expressed as S with the intransitive form of the verb derived by *ma-*, as in (2).

1) [vo-tasi-ku]$_A$ mo bila [na glas]$_O$
FEM-younger.sibling-P:1sg 3sg shatter ART glass
My little sister broke the glass.

(Jauncey 1997: 135)

2) [glas]$_S$ mo **ma**-bila
glass 3sg INTR-shatter
The glass is shattered.

(Jauncey 1997: 135)

Examples (3) and (4), and (5) and (6) show reflexes of **ma-* with the same valency-decreasing derivation in Mangap-Mbula (NNG) and Samoan (Pn), respectively.

3) aŋ-liŋ yok i-se kapa
1sg-pour water 3sg-ascend corrugated.iron
I poured water onto the corrugated iron.

(Bugenhagen 1995: 177)

4) yok i-**mi**-liŋ
water 3sg-DETR-pour
The water spilt.

(Bugenhagen 1995: 177)

5) sā fa'i 1=o='u nifo e le fōma'i
PAST break ART=POSS=1sg tooth ERG ART doctor
The doctor pulled my tooth out.
(Mosel & Hovdhaugen 1992: 738)

6) 'ole'ā **mā**-fa'ifa'i nifo
FUT DEERG-REDUP-break tooth
... my teeth are about to break off!
(Mosel & Hovdhaugen 1992: 738)

Other languages with reflexes of **ma-* with this function include Bariai, Manam and Kairiru (NNG); Nakanai (MM); Arosi and Longgu (SES); North-East Ambae, Paamese and Xârâcùù (SO); and Tongan (Pn). In most languages this function of **ma-* reflexes is only a semi-productive one occurring with a limited number of verbs, often in the range of three to ten. In North-East Ambae and Samoan the set of verbs occurring with **ma-* reflexes is somewhat larger, about twenty-two in North-East Ambae, and in Nakanai and Manam *ma-* is used as a valency-decreasing device with only one and two verbs, respectively.

Hyslop (1998: 87-88, 329-330) notes about North-East Ambae that the transitive verbs which can be detransitivised by *ma-* are those high in transitivity in terms of Hopper and Thompson's (1980) transitivity scale. That is, the transitive verbs which can take *ma-* in North-East Ambae are those which generally denote punctual events. The participant expressed as A is an animate causer and the participant expressed as O is totally affected by the event denoted by the verb. Thus verbs which can take the anticausative prefix *ma-* in North-East Ambae include, *kore* 'to break', *lingi* 'to spill', *wahe* 'to divide', and *tugi* 'to pull down'.

Reflexes of **ma-* as a valency-changing prefix restricted to such a class of verbs are also found in other Oceanic languages. Mosel and Hovdhaugen (1992: 737-738) note that in Samoan *ma-* is restricted to use with verbs belonging to the semantic field of destruction. Jauncey (1997: 135) notes a similar restriction in Tamambo where verbs which can occur with *ma-* are described as those denoting processes where either the object "loses its physical unity"[1], or where a change in the physical state of the object has occurred. For North-East Ambae, Tamambo and Samoan the descriptions make mention of the types of verbs with which *ma-* occurs, but even in other languages the generalisation of high transitivity seems to hold when looking at the types of verbs given

[1] This is a term from Dixon's (1991: 111) description of a semantic class of verbs in English.

as examples of *ma-*. Table 7.2 gives verbs which can be detransitivised by *ma-* in a number of languages. As can be seen, the types of verbs (in terms of meaning) are ones which denote actions, where the participant expressed as the A argument would most likely be an animate agent or causer, and therefore "high in potency", and where the particpant expressed as the O argument would most likely be one that is totally (or at least highly) affected by the action of the verb. All three of these features are ones which Hopper and Thompson (1980: 252-253) use as indicators of higher transitivity.

Table 7.2: Reflexes of valency-decreasing **ma-* in Oceanic languages

transitive		intransitive with **ma-*	
Bariai			
poga	*break*	ma-poga	*break spontanteously*
did	*be erect*	ma-did	*stand up (be erected)*
Mangap-Mbula			
paala	*break*	ma-paala	*broke up*
liŋ	*pour*	mi-liŋ	*spilt*
Manam			
sere-ʔ, sare	*break, split*	ma-sare	*be broken, split*
Kairiru			
-wot	*split*	ma-wot	*be split*
kuos	*break*	ma-kuos	*be broken*
Nakanai			
sile	*tear, shred*	ma-sile	*torn, tattered*
Longgu			
bota-li-	*break, smash it*	ma-bota	*be broken*
'oe-	*break it in two*	ma-'oe	*be broken*
kari-	*tear it, rip it*	ma-kari	*be torn*
ngoli-	*tire him/her*	ma-ngoli	*be tired*
Kwaio			
bota-ri-	*smash (it)*	ma-bota	*be smashed*
kwe'e-	*break (it)*	ma-kwe'e	*be broken*
lede-	*snap (it)*	ma-lede	*be snapped off*
ngilo-	*twist, wring (it)*	ma-ngilo	*be tired of doing sth*
tari-	*separate (them)*	ma-tari	*be different*
'oi-	*break (it)*	mo-'oi	*be broken*

Table 7.2 (cont)

transitive		intransitive with **ma-*	
North-East Ambae			
volo	*break sth*	ma-volo	*to break (intr), be broken*
vutu	*uproot, dig up sth*	ma-vutu	*be uprooted, dug up*
lingi	*pour, spill sth*	mwa-lingi	*spill (intr), be spilt*
bitu	*pick sth (fruit)*	ma-bitu	*be picked, fall*
wahe	*divide sth*	ma-wahe	*divide (intr), be divided*
langa	*turn sth over*	ma-langa	*be turned over*
Tamambo			
duru	*split sth*	ma-duru	*be split*
bila	*shatter*	ma-bila	*be shattered*
dare	*crack sth*	ma-ndare	*be cracked*
kamue	*snap, break sth*	ma-kamue	*be broken*
londo	*break sth*	ma-londo	*broken*
uli	*untie sth*	ma-uliuli	*frayed (rope)*
teri	*loosen sth*	ma-teriteri	*loose*
vokati	*open sth*	ma-voka	*open*
Samoan			
fasi	*beat, kill, slaughter*	ma-fasi	*cracked, split*
fa'i	*break off, pull out*	ma-fa'i	*broken*
fuli	*turn, roll (over)*	ma-fuli	*fall over, tend towards*
goto	*sink*	ma-goto	*sunk*
ligi	*pour*	ma-ligi	*run, pour*
tofi	*split, cleave*	mā-tofi	*spilt. cleft*
vavae	*divide, split*	mā-vae	*left, apart, separate*
'ini	*pinch*	ma-'ini	*sting, smart*
lelemo	*duck, drown s.o.*	ma-lemo	*be drowned, drown*

(data from Gallagher n.d., Bugenhagen 1995: 177, Lichtenberk 1983: 241, Wivell 1981a, 1981b, Johnston 1980: 139, Hill 1992: 76, Keesing 1985: 74, Hyslop 1998: 330, Jauncey 1997: 235, Mosel & Hovdhaugen 1992: 184-185)

The second way **ma-* is reflected is as a fossilised prefix occurring as the initial segment of Undergoer subject verbs denoting properties. This occurs to a great extent in Longgu (SES), and Tamambo, Lewo and Paamese (SO), and to a lesser extent (one or two forms) in other languages. As Early (1994: 138) notes about such forms in Lewo,

they can be seen to reflect **ma-* because: a) some reflect Proto Oceanic complex forms reconstructed with the **ma-* prefix; b) some are trisyllabic, reflecting a canonical disyllabic stem plus **ma-*; and c) the forms have state or process meanings. Table 7.3 gives forms which may reflect a fossilised **ma-* prefix in several languages.

Table 7.3: Fossilised reflexes of **ma-*

Bariai		
	maraka	*be soft*
	marara	*be hard*
	marum	*weak, soft*
	matala	*be amazed*
	matua	*be strong*
Longgu		
	madali	*be slippery*
	madive	*be thin*
	ma'ebo	*be tired*
	maluate	*be loose, slack*
	maniilu	*be sweet to taste*
North-East Ambae		
	mava	*be/become heavy*
	mamarae	*be/become light*
	manivinivi	*be/become shallow, low tide, thin*
	makenikeni	*be/become sharp*
	mavute	*be white, whiten*
	maeto	*be black, blacken*
	mena	*be ripe, ripen*
	manoga	*be/become cooked*
Tamambo		
	mandohi	*be thirsty*
	makira	*be ripe*
	mahariri	*be cold*
	masere	*be full (stomach)*
	mahere	*be straight*
	malalasi	*be smooth*

Table 7.3 (cont)

Paamese		
	mahoi	*be torn, cracked*
	maruaru	*be fallen down, collapsed*
	mahinhin	*be thin*
	maleles	*be wrinkled, withered*
	malumlum	*be soft, flexible*
Lewo		
	maluṗa	*be loose*
	manini	*be cold*
	maninivi	*be thin*
	mapoa	*be broken*
	mapulu	*be swollen up*
	maraga	*be raw*
	maruwa	*be old*
	masusu	*be correct*
Wayan Fijian		
	mātua	*be mature, ripe*
	malum	*be soft*

(data from Gallagher n.d., Hill n.d.-b, Early 1994: 138, Hyslop 1998: 84, Jauncey 1997: 136, Crowley 1992 and Pawley & Sayaba n.d.)

In some languages, such as Bariai, Longgu, North-East Ambae, Tamambo and Paamese, **ma-* is reflected in both ways. For example, in Longgu, the prefix *ma-* occurs as a valency-decreasing prefix with about four verbs, and *ma-* is also found as the initial segment of many Undergoer subject verbs (Hill 1992: 76-77) (cf. Tables 7.2 and 7.3). Other languages, such as Mangap-Mbula and Nakanai seem to reflect **ma-* as a valency-decreasing prefix only, albeit unproductively in Nakanai. And in Lewo **ma-* is reflected as the initial segment of Undergoer subject verbs, but not as a valency-decreasing morpheme.

7.2.2 Proto Oceanic reconstructions with **MA-*

Lexical reconstructions with **ma-* for Proto Oceanic can be divided into four groups: (a) valency-decreasing **ma-*; (b) **ma-* as the initial segment of Undergoer subject

verbs denoting properties, but for which no form without *ma- is reconstructable; (c) Undergoer subject verbs denoting properties which can be reconstructed for Proto Oceanic both with and without *ma-, but with no obvious difference in meaning between the forms with and without the prefix; and (d) *ma- as the initial segment of some experiential verbs, for which no form without *ma- is reconstructable.

The first of these is clearly the antecedent of the valency-decreasing functions found with *ma- reflexes in so many modern Oceanic languages. The second and third groups both represent the second function of *ma- reflexes described above, that is fossilised reflexes with Undergoer subject verbs. And the fourth group was not presented in the previous section.

It is not easy to reconstruct verbs with which *ma- occurred as a valency-decreasing prefix, where reflexes of both the transitive form and the intransitive form with *ma- need to be reflected in several daughter languages. Table 7.4 gives the reconstructed forms and the supporting data for the two well distributed cognate sets found so far.

Table 7.4: Proto Oceanic verbs which took valency-decreasing **ma-*

		transitive		intransitive with **ma-*	
	POc	*liŋi-	*pour sth out*	*ma-liŋi	*be poured, spilt*
NNG:	Sio	liŋi	*pour sth out*	ma-liŋi	*(liquid) run away*
NNG:	Mangap-Mbula	liŋ	*pour*	mi-liŋ	*spilt*
PT:	Misima	liŋi	*pour sth out*	ma-liŋi-n	*(liquid) run away*
SO:	N-E Ambae	liŋi	*pour, spill sth*	mwa-liŋi	*spill (intr), be spilt*
Pn:	Tongan	liŋi	*to pour sth out*	ma-liŋi	*be poured out, spilt*
	POc	*saʀek-i	*tear sth*	*ma-saʀek	*be/become torn*
NNG:	Manam	sere-ʔ-, sare	*break, split*	ma-sare	*be broken, split*[2]
SO:	Mota	sare	*to tear*	ma-sare	*torn*
Pn:	Tongan	hae	*to tear (apart)*	ma-hae	*torn, rent*

A number of verbs can be reconstructed for Proto Oceanic which denoted properties and were trisyllabic with an initial **ma-*. Such verbs are given in Table 7.5[3]. The known Proto Malayo-Polynesian antecedents of these forms are also given. As can be seen for Proto Malayo-Polynesian, forms with and without **ma-* are mostly reconstructable, demonstrating that **ma-* was a productive morpheme at this time. The known reflexes of these verbs in modern Oceanic languages reflect only the form with the initial **ma-*, suggesting that with these forms **ma-* in Proto Oceanic was no longer a separable prefix. With the first four verbs in Table 7.5 it appears that the original initial **ma-* has coalesced phonologically with the original root, which, if true, is further evidence that by Proto Oceanic **ma-* had already become fossilised with these roots.

[2] Manam has two transitive forms of this verb. *Sare* is used when the O argument denotes a 3pl non-higher animal (Lichtenberk 1983: 241). See also chapter 3, section 3.3.1.2.1 for a discussion of Manam object marking.

[3] These reconstructions are from Ross (1998), where the supporting data are also presented.

Table 7.5: Fossilised *ma- in Proto Oceanic

Proto Oceanic		Proto Malayo-Polynesian	
*meʀaq	*red*	*ma-iʀaq	*red*
*mamis	*sweet*	*ma-hemis	*sweet*
		*[h]emis	*sweet taste*
*mataq	*raw, unripe, new, green*	*ma-qataq	*raw, unripe*
		*qataq	*raw, unripe*
*maosak	*ready to be eaten (ripe, cooked)*	*[ma-]qesak	*ripe, cooked, ready to eat*
*maqasin	*be salty, sharp, of taste*	*ma-qasin	*salty*
		*qasin	*salty taste*
*maqurip	*alive*	*ma-qudip	*alive*
		*qudip	*life, alive*
*madrali((s,t))	*smooth, slippery*	*[ma]dalis, *dalit	*smooth, slippery*
*matolu	*thick*	PCEMP *telu	*thick*
*manipis	*thin*	*[ma]nipis	*thin*
*maqeto(m)	*black*	*[ma]qitem	*black, deep blue*
*manaca(m)	*accustomed to, tame*	*[ma]najam	*accustomed to; tame*
*makato	*(be) itchy*	*ma-gatel	*be itchy*
		*gatel	*itch (N)*
*matipi(s)	*thin*	*tipi	*thin*
*mari(d)ri(ŋ)	*(s.o.) cold*	*diŋin	*cold*
*malino	*calm*	*linaw	*be clear*
*mawiʀi	*left-hand*	*wiʀi	*left side or direction (N)*
*maqati	*be low tide*	*ma-qati	*be low tide*
		*qati	*low tide*
*mapat	*heavy*	—	
*maluas	*soft*	—	
*malaso	*be cold*	—	
*malasoŋ	*cold (N)*		
PEOc *marawa	*green*	—	

The third group of reconstructions comprises Undergoer subject verbs for which forms with and without *ma- are reconstructable for Proto Oceanic (indicated by the

square brackets). Examples of these reconstructions are given in Table 7.6, along with the Proto Malayo-Polynesian antecedent forms where they are known[4].

Table 7.6: Proto Oceanic statives with and without **ma-*

Proto Oceanic		Proto Malayo-Polynesian	
*[ma]lago	*long, tall*	*[ma]laŋkaw	*high, tall*
*[ma]ʀaqan	*light in weight*	*[ma]ʀaqan	*light in weight*
*[ma]lumu	*soft, gentle, easy*	*[ma]lumu	*soft, tender, gentle*
*[ma]panas	*warm, hot*	*[ma]panas	*be/become warm, hot*
*[ma]ʀaŋo	*become withered (of vegetation)*	*[ma]ʀaŋaw	*dry*
*[ma]sakit	*sick*	*[ma]sakit	*sick*
*[ma]maca	*dry; (food) dry up, evaporate*	*maja	*dry*
*[ma]lawa	*long, tall, far away; wide (?)*	*lawa	*wide*
*malino	*calm*	*linaw	*be clear*
*mawiʀi	*left-hand*	*wiʀi	*left side or direction (N)*
*maqati	*be low tide*	*ma-qati	*be low tide*
		*qati	*low tide*
*mapat	*heavy*	—	
*maluas	*soft*	—	
*malaso	*be cold*	—	
*malasoŋ	*cold (N)*		
PEOc *marawa	*green*	—	

These forms differ from the reconstructions of verbs with and without **ma-* in Table 7.4 in three ways. First, as can be seen from the reconstructed glosses there was no apparent difference in meaning between the form with **ma-* and the form without **ma-*. Thus the modern reflexes of both **makoto* and **koto* suggest the reconstructed meaning of 'straight'. Table 7.7 gives supporting data for the reconstructions **[ma]koto* 'straight' and **[ma]ʀaŋo* 'become withered' demonstrating that the reflexes with **ma-* and those without show no obvious distinction in meaning which can be reconstructed for Proto

[4] Again these reconstructions are from Ross (1998), where the supporting data are also presented.

Oceanic. The second difference is that the glosses of these verbs have state and/or process meanings both with and without **ma-*, whereas the forms without **ma-* in Table 7.4 were dynamic transitives. And third, reflexes of the verbs in Table 7.4 are reflected in a several languages as pairs. That is, several modern languages reflect both the form with **ma-* and the form without **ma-*. This is not the case with the verbs in Table 7.6. With these verbs while modern reflexes of both the unmarked form and the form with **ma-* are are found, particular languages reflect one or other form, but rarely (if ever) both forms. This can also be seen from the supporting data of the reconstructions given in Table 7.7.

Table 7.7: Reflexes of **[ma]koto* and **[ma]ʀaŋo*

POc	*[ma]koto	*straight*
MM: Vitu	maɣoto	*straight; (ground) flat*
SES: Gela	oto	*go directly, straight; set face to do*
SES: W. Guadalcanal	ɣoto	*straight, correct*
POc	*[ma]ʀaŋo	*dry, withered*
Adm: Mussau	malaŋo	*dry*
NNG: Manam	maraŋo	*be dry, withered*
MM: Patpatar	maraŋa	*dry coconut*
MM: Maringe	raŋo	*wilt and die*
SES: Arosi	raŋo	*withered, dead (grass)*
Pn: Samoan	maŋo	*dry*

The reconstructed verbs in Table 7.6 reflect the forms of *ma-* in modern languages which are found as relic prefixes with Undergoer subject verbs (like those given in Table 7.3). In no Oceanic language has this function of **ma-* remained productive. However, the fact that forms with and without **ma-* are reconstructable suggests that it had at least limited productivity in Proto Oceanic.

The fourth group of reconstructions with **ma-* are a few experiential verbs with which the S argument is a human experiencer. The three reconstructions of this group are listed below.

*[ma]t[i,u]ru(R)	*sleep*
*mañawa	*breathe*
*matakut	*fear, be afraid*

7.2.3 Conclusions about Proto Oceanic **ma-*

In the previous section it was demonstrated that there were four groups of forms with **ma-* in Proto Oceanic: (a) those where Proto Oceanic **ma-* occurred as a valency-decreasing prefix; (b) those where an original **ma-* occurred as the initial segment of Undergoer subject verbs denoting properties; (c) those where **ma-* was attached to verb roots which were already Undergoer-subject verbs denoting properties; and (d) three experiential verbs.

The first of these uses is also clearly reflected in modern Oceanic languages, and that Proto Oceanic **ma-* was a valency-decreasing prefix deriving Undergoer subject intransitive forms is clear from Oceanic evidence alone. However, the latter three uses are unclear from the Oceanic evidence. In the modern languages **ma-* reflexes with Undergoer subject verbs denoting properties occur as fossilised forms only. With some Undergoer subject verbs this was also the case in Proto Oceanic (see Table 7.5). With other verbs in Proto Oceanic forms with and without **ma-* are reconstructable, but no difference in meaning can be found to determine the function **ma-* had in this context. These two types of occurrences of **ma-* in Proto Oceanic appear to reflect a single function, which has ceased to be at all productive. With the former the unmarked form of the verb had been lost prior to Proto Oceanic, whereas with the latter both a form with **ma-* and an unmarked form were present in Proto Oceanic. With the fourth group, experiential verbs, **ma-* is reconstructable as a fossilised prefix only.

Proto Oceanic **ma-* has cognates in a number of non-Oceanic Austronesian languages. It seems that **ma-* is probably reconstructable for Proto Austronesian and certainly for Proto Malayo-Polynesian. Evans and Ross (n.d.) look at the cognates of **ma-* in a number of non-Oceanic languages and propose a reconstruction of the uses of **ma-* in Proto Malayo-Polynesian. It appears that **ma-* in Proto Malayo-Polynesian was attached to two classes of roots. Class I roots were forms which denoted processes, often ones that implied an agent. With these roots **ma-* formed the involuntary mood patient

focus forms[5], deriving an accomplishment meaning. Reflexes of this use with Tagalog *ma-* are given in Table 7.8.

Table 7.8: Tagalog *ma-* with an accomplishment meaning

form with *ma-*		unmarked form	
ma-lutás	*get solved*	lutás	*solved*
ma-luto'	*be/become cooked*	luto'	*cooked, cuisine*
ma-kusót	*get crumpled*	kusót	*crumpled*
ma-duróg	*become crushed*	duróg	*crushed, splintered*
ma-hinóg	*become ripe, ripen*	hinóg	*ripe*
ma-mura	*become cheap*	mura	*cheap*
ma-putol	*get cut off*	putol	*a cut, a piece*
ma-tapos	*be/become completed*	tapos	*end, conclusion*
ma-gutom	*become/feel hungry*	gutom	*hunger*
ma-pagod	*get tired*	pagod	*tiredness*
ma-galit	*become angry*	galit	*anger*

(data from Himmelmann n.d., English 1977 and Ramos 1971)

Class II roots in Proto Malayo-Polynesian denoted properties and were implicitly intransitive. With these roots **ma-* derived a form denoting the possession of the property, that is a state meaning. Table 7.9 gives examples of Tagalog forms with *ma-* that reflect this usage.

[5] The modal category called involuntary mood by Evans and Ross (n.d.) is what has been referred to as "involuntary action", "aptatives" and "accidental mood" by Philippinists. It should be noted that involuntary mood does not mean that there was no agent.

Table 7.9: Tagalog *ma-* with a state meaning

form with *ma-*		unmarked form	
ma-gandá	*beautiful*	gandá	*beauty*
ma-dalí'	*quick*	dalí'	*quickness*
ma-init	*hot*	init	*heat*
ma-laki	*big*	laki	*size*
ma-bahay	*having many houses on it*	bahay	*house*
ma-bahá'	*flooded*	bahá'	*flood*
ma-apóy	*flaming*	apóy	*fire*
ma-puti'	*faded*	puti'	*white*
ma-tulis	*sharpened (of e.g. pencils)*	tulis	*sharp*
ma-bilog	*'full (of moon)*	bilog	*round*

(data from Himmelmann n.d., English 1977 and Ramos 1971)

The uses of Proto Oceanic **ma-* as a valency-decreasing prefix and as a prefix that occurred with Undergoer subject verbs denoting properties, clearly reflect the uses of Proto Malayo-Polynesian **ma-* with Class I and Class II roots, respectively.

Proto Malayo-Polynesian **ma-* with Class I roots and Proto Oceanic **ma-* as a valency-decreasing prefix both derived forms denoting the outcome of a process where the subject argument was the patient of the event denoted by the verb. In Proto Oceanic this function of **ma-* was also a valency-decreasing one, deriving intransitive Undergoer subject verbs from transitive ones. In modern Oceanic languages this function of **ma-* reflexes occurs, on the whole, with verbs high in transitivity, and the same was probably also true of Proto Oceanic **ma-*.

Proto Malayo-Polynesian **ma-* with Class II roots derived stative property verbs. It is not entirely clear to what word class these roots belonged, but Evans and Ross (n.d.) conclude that Class I roots were nominals. This is clearly the antecedent of Proto Oceanic **ma-* with Undergoer subject verbs denoting properties. In Proto Oceanic property roots required a derivational affix to form a noun and so the distinction between a property term with **ma-* and an unmarked property root was disappearing. With some forms the unmarked root was lost prior to Proto Oceanic and **ma-* is reflected as a fossilised prefix.

With other forms the unmarked root apparently developed into a verbal form and thus both forms with and without **ma-* are reconstructable, but with no apparent difference in meaning.

The fourth group of forms with**ma-* in Proto Oceanic are the three experiential verbs, **[ma]t[i,u]ru(R)* 'sleep', **mañawa* 'breathe', and **matakut* 'fear, be afraid', which contain **ma-* as a fossilised element. Evans and Ross (n.d.) demonstrate that two of these verbs, **matakut* 'fear, be afraid' and **[ma]t[i,u]ru(R)* 'sleep', are descended from Proto Malayo-Polynesian Class I roots with transitive meanings, **tuduR* 'put to bed, put to sleep' and **takut* 'frighten'. The fact that the subject of these verbs was a human experiencer rather than an inanimate patient is evidently responsible for their reinterpretation as Proto Oceanic experiential verbs, the loss of the unaffixed transitive form, and the concomitant fossilisation of **ma-*. The history of the third form **mañawa* 'breathe' is less obvious, but the presence of a cognate form in Taba, an Eastern Malayo-Polynesian language, *manowo* 'breathe', indicates that it is a pre-Proto Oceanic form.

In summary, **ma-* in Proto Oceanic had two uses, both of which can be seen to reflect original functions of Proto Malayo-Polynesian of **ma-*. Proto Oceanic **ma-* occurred as: (i) a semi-productive valency-decreasing prefix that derive Undergoer subject forms from transitive forms; and (ii) as a separable prefix with some Undergoer subject verbs that denoted properties, but with no clear derivational meaning. **Ma-* was also reflected in Proto Oceanic as the initial segment of other Undergoer subject verbs that denoted properties and as the initial segment of at least three experiential verbs.

7.3. THE **TA-* PREFIX

Reflexes of **ta-* in Oceanic languages, like those of **ma-*, occur as semi-productive valency-decreasing prefixes. There are also languages which have fossilised reflexes of **ta-*, but unlike those with **ma-*, these forms seem more clearly related to the semi-productive function of **ta-*. The description of Proto Oceanic **ta-* given in section 7.3.4 is based on the examination of reflexes of **ta-* in modern Oceanic languages; the types of verbs reconstructable with **ta-* for Proto Oceanic; and the uses of cognates of **ta-* in non-Oceanic languages. However, the semi-productivity of **ta-* reflexes in Oceanic languages means that the non-Oceanic evidence plays a less necessary role in determining the history of this form.

7.3.1 *TA- REFLEXES IN OCEANIC LANGUAGES

In a number of Oceanic languages reflexes of **ta-* have the same valency-decreasing use as is found with reflexes of **ma-*. Thus reflexes of **ta-* derive intransitive verbs from transitive verbs, with which the transitive O argument corresponds to the intransitive S argument in terms of semantic role. This is shown by (7) and (8) from Mussau (St. M), where the patient participant, expressed as the O argument in (7), is expressed as the S argument when the verb takes *ta-* in (8).

7) [agele]$_A$ kotola [ai etea]$_O$
1sg-PAST break stick SG:II
I broke the stick.

(ME-L-59)

8) [tukungai eteva]$_S$ nge **ta**-kotola
stick SG 3sg INTR-break
The stick is broken.

(ME-L-60)

This same derivation with reflexes of **ta-* is also shown by (9) and (10) from Saliba (PT) and (11) and (12) from North-East Ambae (SO).

9) pilipou ya-pulisi- Ø
trousers 1sg-tear-3sg.O
I tore the trousers.

(Margetts 1999: 200)

10) pilipou ye-**ta**-pulisi
trousers 3sg-RESULT-tear
The trousers are torn.

(Margetts 1999: 200)

11) da=mo tai visa na avi.
1NSG.INCS=RL chop split ACC firewood
We split the firewood (by chopping it).

(Hyslop 1998: 332)

12) gai u **te**-visa.
wood TEL ANTI-split
The wood/tree is split.

(Hyslop 1998: 332)

Table 7.10 gives examples of detransitivising uses of **ta-* reflexes in a number of Oceanic languages. Unlike with valency-decreasing reflexes of **ma-*, in a couple languages, including Hoava (MM) and Kwaio (SES), **ta-* reflexes with this function are fully productive. For example, in Hoava *ta-* is a fully productive passive prefix and can even be added to stems derived with the causative prefix (Davis 1997: Section 5.3.5). In other languages **ta-* reflexes seem to be more restricted in the types of verbs with which they occur. Lincoln (1976: 150-153) notes that Banoni (MM) *ta-* is restricted to verbs which involve a "basically transitive meaning", including meanings like 'break', 'cut', 'open' and 'close'. Corston (1996: 20) notes a similar restriction in Roviana (MM), where *ta-* occurs with verbs denoting "prototypical transitive situations", and also with verbs of cognition. From the examples in Table 7.10 it seems that it is not only in Banoni and Roviana that verbs taking **ta-* reflexes denote "prototypically transitive situations". Most of the forms in Table 7.10 are process-action verbs where the patient participant is highly affected by the event. This is reminiscent of the types of verbs that take reflexes of **ma-* as a valency-decreasing prefix, that is, those high in transitivity. It should be noted, however, that this may be due to the fact that the types of examples which most clearly demonstrate the valency-decreasing use are just such highly transitive forms. In Saliba, North-East Ambae, Nakanai and Manam only the few verbs given for each language occur with *ta-*.

Table 7.10: Reflexes of valency-decreasing **ta-* in Oceanic languages

Manam			
ʔorot	*cut sth*	ta-ʔoro	*be broken, snap*
Saliba			
huhu	*pluck sth*	ta-huhu	*be plucked*
you	*bend sth*	ta-you	*be bent*
soke	*open sth*	ta-soke	*be open*
kesi	*break sth*	ta-kesi	*be broken*[6]

[6] The differences between the three Saliba stems glossed as 'break' are to do with the object involved, or perhaps the manner of breaking, see Margetts (1999: 199).

Table 7.10 (cont)

godu	*break sth*	ta-godu	*be broken*
utusi	*break sth*	ta-utusi	*be broken*
pulisi	*tear sth*	ta-pulisi	*be torn*
Nakanai			
lube	*loosen, undo, unravel sth*	ta-lube	*loose*
suku	*move sth, change position of sth*	ta-suku	*be moved*
Banoni			
puake	*open sth*	ta-puke	*be open*
pi	*close sth*	ta-pi	*be closed*
patsi	*break sth off*	ta-patsi	*be broken off*
Hoava			
ome	*see sth*	ta-ome	*be seen*
kuri	*break sth*	ta-kuri	*be broken*
ŋani	*eat sth*	ta-ŋani	*be eaten*
pota	*beat sth*	ta-pota	*be beaten*
Roviana			
poka	*to nail sth*	ta-poka	*be nailed*
tupa	*to punch sth*	ta-tupa	*be punched*
gilana	*to know sth*	ta-gilana	*be known*
pusi	*to tie sth*	ta-pusi	*be tied*
seke	*to hit sth*	ta-seke	*be hit*
Longgu[7]			
vuri-si-a	*to open sth*	a-vure	*be open*
Kwaio			
fari-a	*split, divide sth*	a-fari	*be divided, split*
bota-ri-a	*smash sth*	a-bota	*be smashed*
bulo-a	*turn sth*	a-bulo	*be turned, twisted*
rube-a	*untie, loosen sth*	a-rube	*be loose, slack*
'iri-si-a	*pour sth out*	a-'iri	*be spilt*

[7] The Kwaio and Longgu prefixes with the form *a-* are regular reflexes of Proto Oceanic **ta-*, as **t* is lost in the Cristobal-Malaitan languages of Southeast Solomonic.

Table 7.10 (cont)

North-East Ambae			
tugi	*make sth fall*	ta-tugi	*fall down*
visa	*split sth*	te-visa	*be split*
waga	*split sth open*	ta-waga	*be split open*
Wayan Fijian			
ceve-li	*lift sth up*	ta-ceve	*peel, come off*
sova-ti	*pour sth*	ta-sova	*spill over*
vuki-ci	*turn sth around, over*	ta-vuki	*swing around, be twisted*

(data from Lichtenberk 1983: 241, Margetts 1999: 199-201, Johnston 1980: 139 Lincoln 1976: 151-152, Davis 1997: Section 5.3.5, Hill 1992: 77, Keesing 1985: 73-74, Hyslop 1998: 331-332, Pawley & Sayaba n.d.)

As mentioned in section 7.1 **ta-* is reconstructed by Pawley (1972) with the additional notion of 'spontaneity', that is the notion that the event denoted by the verb arose without the involvement of an external agent. This is true in Banoni, where an intransitive verb derived with *ta-* indicates that no agent, expressed or implied, was involved in the event (Lincoln 1976: 150-152), as demonstrated by (13) and (14).

13) $[taki]_A$ ke patsi $[teese]_O$
boy CMP break.off coconut
The boy picked coconuts.

(Lincoln 1976: 152)

14) $[teese]_S$ ke **ta**-patsi
coconut CMP **PART**-break.off
A coconut is off the tree.

(Lincoln 1976: 152)

This is also part of the function of reflexes of **ta-* in several other languages. Pawley & Sayaba (n.d) state that Wayan Fijian *ta-* derives a stative verb where the state or event has come about on its own accord without an agent being involved, as shown in (15). *Ta-* in Wayan Fijian has other functions too, which will be described later.

15) sā **ta**-sova na tabe ni maqo
PERF **ta**-pour CN basket GEN mango
The basket of mangoes has spilt.

(Pawley & Sayaba n.d.; gloss mine)

In Roviana *ta-* derives agentless constructions, where an agent not only is not present in the clause, but is also not recoverable from surrounding clauses, although a generic agent may be implied (Corston 1996: 19). Examples (16) and (17) show the use of *ta-* in Roviana.

16) ... gua asa ke kote **ta**-tupa hoboro
... SAY that so FUT PASS-punch nothing
... that's why you'll get punched for nothing.

(Corston 1996: 20)

17) ... ke lopu **ta**-gilana kote koburu sia ba vineki sia
... SO NEG PASS-know FUT boy that or girl that
... so it's not known if it will be a boy or a girl.

(Corston 1996: 20)

In Bauan (Standard) Fijian and Boumaa Fijian there are a series of prefixes which have this 'spontaneous' function. Arms (1974: 72-76) describes the function of these prefixes in Bauan Fijian as deriving primarily stative forms, although some may have either a stative or dynamic interpretation. They also have a spontaneous meaning, where the event is viewed as being independent of any agency. The spontaneous prefixes occur with only a limited number of verbs, all of which Arms (1974: 72) found to be Undergoer subject verbs. The difference between the unmarked intransitive form in (18) and the 'spontaneous' form in (19) is that the underived intransitive form is unmarked as to an agent, whereas the derived spontaneous form is marked as minus agent.

18) e ā dola na kātuba
3u PAST open CN door
The door was open. / The door opened. / The door was opened.

(Arms 1974: 73)

19) e ā **ta**-dola na kātuba
3u PAST SPON-open CN door
The door was open.

(Arms 1974: 74)

One of these spontaneous prefixes has the form *ta-* which clearly reflects Proto Oceanic **ta-*, but there are also functionally equivalent prefixes of the forms *ca-*, *ra-* and *ka-* (*'a-* in Boumaa Fijian). Examples of these prefixes in Bauan and Boumaa Fijian are given in Table 7.11. Arms (1974: 121-124) proposes that the different consonants of the spontaneous prefixes correlate with particular semantic classes of verbs. Thus most of the forms which take *ca-* relate to sound (eg. *ca-bolo* 'explode', *ca-quru* 'make a crunching noise' and *ca-rotu* 'flap like a speared fish')[8]. Arms (1974: 124 & 146) also notes that *ta-* has the widest ranging semantic scope and suggests that it has become a neutral or unspecified category. In an Oceanic historical context it seems more likely that *ta-* is not so restricted as the other prefixes because it reflects the original form. The other prefixes with this function appear to be later developments.

Table 7.11: 'Spontaneous' prefixes in Bauan and Boumaa Fijian

Bauan Fijian			
dresu-ki	*to tear*	ka-dresu	*be torn*
musu-ki	*to break*	ra-musu	*be broken*
dola-vi	*to open*	ta-dola	*be open*
ṣova-i	*to spill*	ta-sova	*be spilt*
Boumaa Fijian			
bote-	*pull down (house)*	'a-bote	*fall down*
druti-	*pull off, cut*	ca-druti	*come off*
uru-ca	*lower, slacken*	ta-uru	*become slack*
lo'i-	*bend*	ta-lo'i	*be bent*
sere-'a	*loosen, untie*	ta-sere	*come undone (knot)*
		'a-sere	*come to pieces (cooked flesh)*

(data from Arms 1974: 73-75, Dixon 1988: 225)

[8] See Chapter 5, section 5.6.1.2 for a description of Arms' similar proposal for thematic consonants with reflexes of **-i* and **akin[i]*. Arms (1974: 121-124) shows how with some consonants there appears to be a connection between the thematic consonants with reflexes of **-i* and **akin[i]* and the consonants with the spontaneous prefixes. Such a connection warrants further historical research, but will not be pursued in this thesis.

In Saliba and North-East Ambae it also seems that no agent or cause participant is expressed within a clause where the verb takes *ta-*.

However, this is not the case in all languages. In Hoava and Wayan Fijian it is possible for the cause of the event to be overtly expressed in a clause where the verb takes *ta-*. In Hoava the agent of passives derived with *ta-* is mostly not expressed in the clause, but it can be (Davis 1997: Section 6.4). The expression of an agent in a passive clause varies depending on whether it is human or non-human. Human agents are expressed as prepositional phrases with the preposition *ta*, as in (20) below[9]. For non-human agents the verb takes the applicative suffix *-ni* and the agent is indexed by the object markers. This is shown in (21). If the agent is non-human and indefinite it may come directly following the verb, as in (22), or may be incorporated into the verb phrase and then the applicative suffix does not occur, as in (23) (Davis 1997: Section 6.4). In Hoava *ta-* is used to allow a patient noun phrase to be more topical than an agent and the construction is particularly used when the patient is a higher animate than the agent (Davis 1997: Section 6.4).

20) **ta**-hakeagi [te Amina]$_{PP}$ [rao]$_{S}$
PASS-look.after PREP A. PRO:1sg
I am looked after by Amina.
(Davis 1997: Section 6.4)

21) **ta**-hoqi-ni-a [rao]$_{A}$ [sa boko]$_{O}$
PASS-gore-APP-3sg PRO:1sg ART:SG pig
I was gored by the pig.
(Davis 1997: Section 6.4)

22) **ta**-gusi-ni-a [siki]$_{O}$ [rao]$_{A}$
PASS-bite-APP-3sg dog PRO:1sg
I was bitten by a dog.
(Davis 1997: Section 6.4)

23) **ta**-suni tape [sa koburu]$_{S}$
PASS-sting stingray ART:SG child
The child was stung by a stingray.
(Davis 1997: Section 6.4)

[9] In (20) the preposition *ta* has the form *te*.

In Wayan Fijian, *ta-* may derive an Undergoer subject verb which implies the presence of some cause participant. This participant is usually only implied, but can be expressed as a prepositional phrase, as in (24).

24) a **ta**-lave i na cagi
3sg **ta**-lifted LOC CN wind
It was lifted by the wind.

(Pawley & Sayaba n.d.; gloss mine)

In the preceding description two functions of Wayan Fijian *ta-* have been mentioned: one where *ta-* derives an Undergoer subject verb and indicates that the event has come about spontaneously, and the other where *ta-* derives an Undergoer subject verb which implies the presence of some cause of the event. The third function of Wayan Fijian *ta-* is to indicate that an agent participant has carried out the event denoted by the verb accidentally. In their dictionary Pawley and Sayaba (n.d.) define *ta-* as two homophonous prefixes which are possibly cognate. The first, *ta*^{1}-, indicates that the event denoted by the verb came about spontaneously. This function has two types of use. In the first, as in (15), an Undergoer subject verb is derived where no agent or cause participant is involved in the event. In the second *ta*^{1}- indicates a spontaneous event where the agent participant does something accidentally. This is shown by (25). The derived verb *tā-dere* means 'to accidentally touch or brush against something', as in (25) where the boat is touching the reef. This can be compared with (26), where the underived form *dere-* 'to touch, handle' is used with a wilful agent participant. Other forms taking *ta*^{1}- with this use include *tā-cuqu* 'bump, crash in to sth accidentally' and *ta-caqe* 'kick sth accidentally, stub toe'.

25) a mai **tā**-dere na lea waqa i na dela ni cakau
3sg DIR **ta**-touch CN 3sg.POSS boat LOC CN top GEN reef
His boat just touched against the reef.

(Pawley & Sayaba n.d.; gloss mine)

26) kua ni derē ne ilavo
NEG.IMP PRT touch:3sg ART money
Don't touch the money.

(Pawley & Sayaba n.d.; gloss mine)

The second prefix *ta*^{2}- has the other function mentioned above, that is, deriving Undergoer subject verbs which imply an agent or cause participant that may be expressed within the clause. This was shown by (24).

This classification neatly divides the *ta*- prefixes in terms of their meanings. However, in terms of their syntactic structure the prefixes could be classified in another way. Table 7.12 compares the semantic and syntactic functions of Wayan Fijian *ta*^{1}- and *ta*^{2}-.

Table 7.12: Uses of Wayan Fijian *ta*-

	meaning of form with *ta*-	syntactic structure of form with *ta*-
***ta*^{1}-**		
(i)	spontaneous event (outcome of process)	Undergoer subject verb
(ii)	spontaneous event (accidental)	Actor subject verb
***ta*^{2}-**		
	outcome of process, cause participant implied	Undergoer subject verb

Ta^1- in (i) and *ta*^{2}- both derive Undergoer subject verbs and the participant expressed as S is a patient. This derivation is demonstrated by (27) and (28). In (27) the verb *basu* 'break open, broken' is in its transitive form with the transitive suffix *-ki*. The participant expressed as A is the agent or causer, and the participant expressed as O is the patient. In (28) the verb is used with the *ta*- prefix and the patient participant is expressed as S[10]. This use of *ta*- was also shown by (15). When *ta*^{1}- is used to indicate that an agent did something accidentally it does not derive an Undergoer subject verb; instead it takes as the S argument an agent participant. This use of *ta*- was shown by (25) In terms

[10] The unmarked form of this verb has the same syntactic structure as the form with *ta*-, as shown in (a). This seems to be the case with a number of verbs which take *ta*- in Wayan. The difference between these unmarked forms and forms with *ta*- is not known (Andrew Pawley pers.comm.).

a) sā basu ŋa kisi
PERF break CN box
The case broke open.

(Pawley & Sayaba n.d.; gloss mine)

of their meanings, *ta*^{1}- in both uses denotes events that are spontaneous in some way, whereas this is not true of verbs taking *ta*^{2}-.

27) [a lia]$_{A}$ a basu-ki-a [na leqiau were]$_{O}$
3 someone 3sg break-TR-3sgO CN 1sg.POSS house
Someone broke into my house.
(Pawley & Sayaba n.d.; gloss mine)

28) sā **ta**-basu [na ledru laka i Waya]$_{S}$
PERF **ta**-break CN 3dl.POSS co-op LOC Waya
The Wayan's cooperative project has broken up.
(Pawley & Sayaba n.d.; gloss mine)

In Paamese (SO) there is an apparent reflex of Proto Oceanic **ta-* which has somewhat different functions from the other Oceanic reflexes. Paamese *ta-* derives adjectives from nouns and stative verbs. When attached to a noun *ta-* derives an adjective that expresses a property which is an inherent characteristic of the noun stem. Thus *ta-dasi* 'knowing the ways of the sea' from *dasi* 'sea' and *ta-loko=hisi* 'yellow' from *loko=hisi* 'banana pudding'[11]. When attached to nominals derived from non-stative verbs *ta-* indicates that there is a purposive relationship between the action or process denoted by the deverbal nominal. Thus the nominalised form of *kulu* 'swim', *kulu-ene*, occurs with *ta-* in the phrase *tirausis ta-kulu-ene* 'swimming trunks'. The third use of *ta-* is with stative verbs and derives an adjective which denotes a permanent or inherent quality of the referent described (Crowley 1982: 96-97). This function is demonstrated by the difference between (29) and (30). In (29) *kaiho* 'strong' is used verbally in a relative clause describing *moăltine* 'man' and expresses an impermanent or incidental property of the man. In (30) *kaiho* 'strong' occurs with *ta-* and the noun phrase now denotes a 'warrior' or 'sorcerer', that is a man that is inherently 'strong'. I have not found these functions of a **ta-* reflex or cognate elsewhere in Oceanic or non-Oceanic languages, and it seems that either Paamese *ta-* is not a reflex of Proto Oceanic **ta-* or that these functions are an innovation of Paamese[12].

[11] The Paamese forms are given in their underlying forms.
[12] Some instances of Paamese *ta-* may be reflexes of Proto Oceanic **tau* 'man', but I have not looked into this.

29) moăltine koani gaiho
man INDEF 3sg.RL.strong
a strong man

(Crowley 1982: 97)

30) moăltine **ta**-kaiho
man ADJ-strong
warrior / sorcerer

(Crowley 1982: 97)

Alongside **ta-*, Pawley (1972: 39 & 45) reconstructed for Proto Eastern Oceanic a second prefix, **tapa-*, that indicated spontaneity, though he later gave up this version of Proto Eastern Oceanic. Reflexes of a form **tapa-* are found in languages of northern Vanuatu, several Southeast Solomonic languages and in Ganoqa (MM). Table 7.13 gives examples of these forms. The origins of these forms is not clear. It is possible that they reflect a combination of **ta-* and the causative prefix **pa-*. Such a sequence of prefixes is found in Hoava, where *ta-* can be attached to a verb stem comprising the causative prefix *va-*, as in (31).

31) ta-va-mae sa nikana isana
PASS-CAUSE-come ART:SG man that
That man was made to come.

(Davis 1997: Section 6.4)

If this hypothesis were correct then forms taking an apparent reflex of **tapa-* would have originally been part of a three-way paradigm comprising an unmarked form, **V*; a causative form, **pa-V*; and an Undergoer subject form derived from the causative form with **ta-*, **ta-pa-V*. The loss of the causative form would have led to a two-way contrast between an unmarked form, **V*; and an Undergoer subject form, **tapa-V*. With many of the forms in Table 7.13 it is difficult to reconcile the meanings with such an analysis. It should also be noted that the language in which a productive sequence of **ta-* and **pa-* reflexes is found is one in which *ta-* has become a fully productive passive prefix, whereas in Proto Oceanic it appears that **ta-* was somewhat more restricted in its usage. Further research is needed to determine the history of these forms.[13]

[13] Codrington (1885: 189) notes a similarity in form and function between these forms and Malagasy *tafa-*, but I have not pursued this.

Table 7.13: Reflexes of *tapa-

form with *tapa-		unmarked form, where given	
Ganoqa			
tava-turu	*stand up*		
Mota (SO)			
tava-ul	*to come untied*	ul	*to untie*
tava-masu	*to fall down*		
tava-roro	*to sink down*		
tav-sare	*torn*		
Maewo (SO)			
tava-ragata	*get up*		
tava-risa	*lie down*		
Gela			
tava-ole	*to wander*	ole	*to stroll about, go for a walk*
tava-togi	*loosed of itself*	togi	*to unite, loose*
Bugotu			
tava-guguri	*to blow in gusts*	guiguri(-hi)	*to blow (wind)*
tava-raraha	*enlightened, cleared of mind*	raraha	*to shine, enlighten, clean*
		va-raraha	*to make clean or clear*
tava-uunu	*loosed*	uunu	*to be stripped off, undone*
		uuni-hi	*to undo*

(data from Kettle 2000, Codrington 1885, Fox 1955, Ivens 1940, Ivens 1918)

7.3.2 Proto Oceanic reconstructions with *TA-

Table 7.14 gives the two pairs of forms so far reconstructable for Proto Oceanic with and without *ta-. In the case of *Rubat-i- 'to untie, loosen sth' and *ta-Rubat 'loosened, untied', both the transitive form and the intransitive form with *ta- are reflected in three languages from different Oceanic subgroups and thus the two forms and the distinction between them are quite clearly reconstructable for Proto Oceanic. The second pair, *p^{w}alaq-i- 'to split sth' and *ta-p^{w}alaq 'to be split', are reflected rather

differently. Only one language, Ramoaaina (MM), reflects both the transitive form and the intransitive form with **ta-*[14]. Reflexes of the intransitive form with **ta-* are also found in Lou (Adm) and Malango (SES), but these languages do not have reflexes of the form without **ta-*. Other languages, like Mangap-Mbula (NNG), Bilur (MM) and Carolinian (Mic.) have reflexes of the transitive form only, and not the form with **ta-*. However, the distinction in function attributed to the Proto Oceanic forms is demonstrated not only by the Ramoaaina forms, but also by the meanings of the **ta-* forms and the transitive forms in the other languages.

Table 7.14: Proto Oceanic verbs with and without **ta-*

POc	*Rubat-i-	*to untie, loosen*	*ta-Rubat	*loosened, untied*
Adm: Titan	lú^{m}βuti	*untie (tr.)*	_	
NNG: Manam	rube-t-	*untie*	_	
MM: Nakanai	lube	*loosen, undo*	ta-lube	*loose, untied*
SES: Kwaio	lube-a	*loosen, untie*	a-luba	*loosen, untie*
SO: Lewo	luβa-ri	*become untied*	ta- luβa	*become loose, free*
POc	*p^{w}alaq-i-[15]	*split (wood etc)*	*ta-p^{w}alaq	*to be split*
Adm: Lou	_		tapal	*break*
NNG: Mangap-Mbula	paala	*break, cut in two*	_	
MM: Ramoaaina	palaŋ	*split down centre*	ta-palaŋ	*halved, broken*
MM: Bilur	parak	*split (wood)*	_	
SES: Malango	_		tapala	*split*
Mic: Carolinian	fala	*chop, split, cut tr*	_	

7.3.3 **TA-* COGNATES IN NON-OCEANIC LANGUAGES

Many non-Oceanic languages, particularly those of western Indonesia, have reflexes of a form **taR-*, the antecedent of Proto Oceanic **ta-*. The reflexes of **taR-* in

[14] The final consonant of this form is irregular. Proto Oceanic **q* is lost in Ramoaaina (see Ross 1988: 268)

[15] This reconstruction and some of the supporting data presented here are from Ross, Clark and Osmond (1998: 260).

four non-Oceanic languages, Taba, Tukang Besi, Karo Batak and Acehnese, are described here, and some tentative conclusions are put forward about the Proto Malayo-Polynesian form.

In Taba the prefix *ta-* has four functions all of which have the effect of reducing the agency of an argument associated with the verb (Bowden 1997: 249). The most common function of *ta-* is to remove the agent argument from a transitive verb, thereby deriving an Undergoer intransitive verb. This is shown by (32) and (33). The agent argument present in (32) is omitted from (33). Clauses with *ta-* in this function can generally be seen as describing the way in which the patient participant has been affected by the event denoted by the verb. *Ta-* can derive Undergoer intransitives from basic transitive verbs and also derived transitives, as in (34) where *ta-* has been added to the applicativised stem *so-ak* 'send out' (Bowden 1997: 250-251).

32) i n=bhes niwi
3sg 3sg=husk coconut
She husked the coconut.

(Bowden 1997: 250)

33) niwi **ta**-bhes do
coconut PASS-husk RL
The coconut has been husked.

(Bowden 1997: 250)

34) kofi **ta**-so-ak meja li
coffee PASS-exit-APP table LOC
Coffee is spilt all over the table.

(Bowden 1997: 251)

In Taba there are also many forms which comprise an apparently fossilised *ta-*. For example, forms like *ta-dopas* 'perish' and *ta-plod* 'erupt' occur with an initial *ta-*, but ***dopas* and ***plod* without the *ta-* segment do not occur. These forms and others comprising an apparent fossilised *ta-* refer to some kind of state of disrepair (Bowden 1997: 251-252). *Ta-* can also derive Undergoer intransitives from Actor intransitives, as in (35). In this function *ta-* seems to occur only with motion verbs and indicates that the participant expressed as the S argument (the Undergoer) has no particular purpose in mind (Bowden 1997: 252).

35) **ta**-tagil yak
PASS-walk 1sg
I'm wandering around (with no specific destination in mind).
(Bowden 1997: 253)

The third function of *ta-* is with the second (and non-motion) verb in a motional serial verb construction. Here *ta-* signals that the speaker believes that there is some possibility that the event denoted by the construction will not actually come about, as shown in sentence (36) (Bowden 1997: 253).

36) a=han **ta**-pot ngenge
1pl.EXC.=go PASS-pick kanari.nut
We're going to (maybe) pick kanari nuts. (But we are not sure if any are ripe, so it may not happen).
(Bowden 1997: 253).

The fourth function of *ta-* in Taba occurs with the applicativised form (with *-Vk*) of verbs of excretion where it indicates that the excretor lacks control (Bowden 1997: 254). These latter three uses of Taba *ta-* appear to share the sense of 'lack of control over the event of outcome'.

Tukang Besi has two prefixes which seem likely to be cognate with Proto Oceanic **ta-*. These are two passive prefixes *to-* and *te-*[16]. Both prefixes derive intransitive verbs from transitive (or ditransitive) verbs, where the transitive O argument corresponds to the intransitive S argument in terms of semantic role. Donohue (1995: 270-274) describes *to-* as a subject-demoting passive, as the original A argument is completely backgrounded and cannot be expressed in the clause. Examples (38) and (39) show the passive form of the verb *'ita* 'see', which is used in its active form in (37). A *to-* passive clause can be interpreted as either a passive action or a non-active state, as indicated by the two translations given for (39).

[16] It is likely that these two Tukang Besi forms reflect one older form which underwent vowel harmony and has since been reanalysed as two separate morphemes.

37) 'u-'ita-'e na kalambe te iko'o
2sg.R-see-3OBJ NOM young.girl CORE you
You saw the young girl.

(Donohue 1995: 271)

38) no-**to**-'ita na kalambe
3R-**PASS**-see NOM young.girl
The young girl was seen.

(Donohue 1995: 271)

39) 'u-**to**-'ita (na iko')
2sg.R-**PASS**-see NOM you
You were seen. / You were visible.

(Donohue 1995: 271)

The Tukang Besi prefix *te-* is what Donohue (1995) calls an accidental passive and occurs only with transitive verbs which do not require animate agency or volition, but can take 'natural' or generic actors (Donohue 1995: 274). Examples (40), (41) and (42) show the non-passive, *to-* passive and *te-* passive forms of the verb *nabu* 'drop'. As can be seen, the *to-* passive implies an animate agent that is not mentioned, whereas the *te-* passive does not.

40) no-nabu te kaluku na amai ito
3R-drop CORE coconut NOM they that:upper
They dropped the coconut.

(Donohue 1995: 275)

41) no-**to**-nabu-mo na kaluku
3R-**PASS**-drop-PF NOM coconut
The coconut was dropped (by someone).

(Donohue 1995: 275)

42) no-**te**-nabu-mo na kaluku
3R-**ACC.PASS**-drop-PF NOM coconut
The coconut happened to fall (through forces of nature, such as a storm).

(Donohue 1995: 275)

In Karo Batak there are two homophonous prefixes *ter*^{1}- and *ter*^{2}-, both of which are described as deriving passives. Woollams (1996: 47) describes *ter*^{1}- as the 'abilitative' passive which refers to "a state or capacity that impinges on the patient". An example of a passive formed with *ter*^{1}- is given in (43). Passives formed by *ter*^{2}- indicate

that the action is accidental, spontaneous or involuntary, as shown by (44) and (45). *Ter*^{2}- can also occur with a few intransitive verbs indicating that the action is involuntary or unexpected, as with *ter-sengget* 'suddenly startled' from *sengget* 'startled' and *ter-tunduh* 'to fall asleep' from *tunduh* 'go to bed' (Woollams 1996: 48-49). With both *ter*^{1}- and *ter*^{2}- the agent participant may occur immediately after the verb, second and third person pronominal forms occurring as verbal enclitics.

43) **ter**malemken dokter ah kang pinakitndu ndai
ABIL.cure.CAUS doctor that PRT illness.your that
Can your illness be cured by the doctor?
(Woollams 1996: 47)

44) **ter**ciluksa bajuna
INV.burn.he shirt.his
He burnt a hole in his shirt (through carelessness while smoking).
(Woollams 1996: 48)

45) **ter**paké aku ndai selopndu, énda kuulihken
INV.wear I before sandal.your this I.return.CAUS
I accidentally took your sandals before, so I am returning them now.
(Woollams 1996: 48)

The apparent cognate of Proto Oceanic **ta-* in Acehnese is the prefix *teu-*[17], which derives four different types of non-controlled meanings:

> (a) accidental actions where there is an initiating participant, but the result of their initiative is not fully intended;
> (b) involuntary events or states where the participant corresponding to the agent is not in full control or has no control over the event
> (c) states of ability where the event or state is not an actual one and so there is no reference made to an agent; and
> (d) resultant states where the resulting state of an event is described with no reference made to an agent.
>
> (Durie 1985: 72)

[17] The diagraph *eu* represents the vowel *ɯ* in Acehnese.

With transitive verbs *teu-* involves either: (a) an accidental event; (c) a state of ability; or (d) a resultant state. The most common meaning of *teu-* with transitive verbs is the resultant state one, and it is particularly used to indicate the effect of an action upon an inanimate participant (Durie 1985: 74-75). This derivation is demonstrated by (46) and (47) with the verb *crôh* 'fry'.

46) lôn=crôh pisang
1=fry banana
I am frying bananas.

(Durie 1985: 59)

47) pisang=nyan ka=**teu**-crôh
banana=that IN=DC-fry
Those bananas are already fried.

(Durie 1985: 59)

Examples (48) and (49) demonstrate the abilitative function of *teu-* with transitive verbs. Here the agent role is completely supressed and cannot occur in the clause (Durie 1985: 75).

48) krueng=nyan h'an=**teu**-langue
river=that NEG=DC-swim
That river cannot be swum.

(Durie 1985: 75)

49) **teu**-peulinkông beusoe=nyan
DC-bend iron=that
That iron can be bent.

(Durie 1985: 75)

Examples (50) and (51) show the accidental function of *teu-*. In (50) the possessor *lôn* is ellipsed and the possessed head *bibi* 'lip' is incorporated. As shown in (52) the 'de-controlled' agent can occur in the clause marked by *lê* or the focus marker *di*, however, this is a marginal construction (Durie 1985: 75-76)[18].

[18] Accidental derivatives with verbs meaning 'see' behave unusually in terms of cross-referencing, but this will not be described here (see Durie 1985: 77-78).

50) teungöh=lôn=pajôh=bu ka=**teu**-kap=bibi
middle=1=eat=rice IN=DC-bite=lip
While eating I bit my lip.

(Durie 1985: 75)

51) **teu**-timbak=geuh baroe
DC-shoot=3 yesterday
He was accidentally shot yesterday.

(Durie 1985: 75)

52) ka=**teu**-koh bak=kayee=nyan lê=kamoe
IN=DC-cut tree=wood=that by=we(EXC.)
We accidentally cut down that tree.

(Durie 1985: 76)

Teu- can also be attached to controlled intransitive verbs indicating that the agent participant is not fully agentive. The meaning conveyed by *teu-* is that the event or state is an involuntary or non-intentional one. In (53) *teu-* occurs with the posture verb *döng* 'stand' and indicates that the posture taken by the participant is not fully intentional. *Teu-* can also be used with posture verbs when the participant is inanimate. Examples (54) and (55) show the involuntary function of *teu-* with the bodily function verb *batôk* 'cough' and the mental activity verb *pikê* 'think' (Durie 1985: 73-76).

53) di=po=rimeung ka=**teu**-döng geuirêng=cidue
FM=lord=tiger IN=DC-stand beside=branch
The tiger (taken aback) just stood there next to the branch.

(Durie 1985: 73)

54) jih **teu**-batôk-batôk
he DC-cough-cough
He is coughing a lot.

(Durie 1985: 74)

55) lôn ka=**teu**-pikê keu=jih
I IN=DC-think DAT=she
I thought of her (all of a sudden).

(Durie 1985: 74)

Non-Oceanic cognates of **ta-* have a similar function to Oceanic reflexes, that of deriving a verb form which takes a patient participant as S and denotes the effect some state or event has on that participant. In Taba, Tukang Besi and Acehnese the cognates of

*ta- also have the valency-decreasing function. In non-Oceanic languages cognates of *ta- can also indicate that an event came about accidentally. That is, *ta- cognates denote that the initiating participant lacks full control over the event. It seems likely that Proto Malayo-Polynesian *taR- had both these uses. That is, *taR- probably derived an Undergoer subject form that denoted the effect the state or event had on an Undergoer. Proto Malayo-Polynesian *taR- was probably also used with forms that took an agent participant to indicate that this participant lacked control over the event.

The difference in form between Proto Malayo-Polynesian *taR- and Proto Oceanic *ta- can be explained in terms of a difference in the phonotactics of the two languages. As described in Chapter 3, section 3.3.1.1, Proto Malayo-Polynesian allowed syllable-final consonants in word-medial postion, whereas Proto Oceanic did not. Thus a word with the structure *CVC_1C_2VC in Proto Malayo-Polynesian became CVC_2VC in Proto Oceanic. A consonant-final prefix like *taR- attached to a consonant-initial stem would have produced a syllable-final consonant word-medially, and as with other non-derived forms the final consonant of a word-medial syllable has been lost in Proto Oceanic. Thus Proto Malayo-Polynesian *taR-CVCVC became Proto Oceanic *ta-CVCVC. The loss of Proto Malayo-Polynesian *R had apparently been extended to all occurrences of the prefix in Proto Oceanic. At least I know of no modern Oceanic language in which the final consonant of Proto Malayo-Polynesian *taR- is reflected, even before vowel-initial verb stems.

7.3.4 Conclusions about Proto Oceanic *TA-

So what do the descriptions of reflexes and cognates of *ta- in modern languages indicate about the Proto Oceanic form? Table 7.15 tabulates the functions of *ta- reflexes and the modern Oceanic languages in which they are found.

Table 7.15: Functions of **ta-* reflexes in Oceanic languages

Function	Languages
(a) derives Undergoer subject verbs without an agent or cause participant	Saliba, Banoni, Roviana, N-E Ambae, Bauan Fijian, Boumaa Fijian, Wayan Fijian
(b) derives Undergoer subject verbs and agent or cause participant may be present	Hoava, Wayan Fijian
(c) indicates lack of control of initiating participant	Wayan Fijian

As can be seen the most widespread function of **ta-* reflexes is to derive an Undergoer subject verb which describes the occurrence of an event or state without reference to an external agent or cause. In some languages **ta-* reflexes in fact indicate the lack of an agent or cause participant. In two languages, Hoava and Wayan Fijian, **ta-* reflexes also derive Undergoer subject verbs, but it is possible to express an agent or cause participant within the clause. Thus functions (a) and (b) are very similar, differing only in whether an agent or cause can be expressed in the clause. In Wayan Fijian *ta-* has a third use, which I have not found in other Oceanic languages, where it indicates that the agent has done something accidentally or involuntarily. This third use of *ta-* in Wayan Fijian has a very different function from the others syntactically in that the form with *ta-* is not an Undergoer subject verb, but an Actor subject one.

Table 7.16 repeats the information given about Oceanic languages above, and also includes the functions of **ta-* cognates in non-Oceanic languages, allowing for a comparison of the Oceanic and non-Oceanic functions.

Table 7.16: Functions of *ta- reflexes & cognates in Oceanic and non-Oceanic languages

Functions	Languages	
(a) derives Undergoer subject verbs without an agent or cause participant	Oc.	Saliba, Banoni, Roviana, Ambae, Bauan Fijian, Boumaa Fijian, Wayan Fijian
	non-Oc.	Taba, Tukang Besi, Acehnese
(b) derives Undergoer subject verbs and agent or cause participant may be present	Oc.	Hoava, Wayan Fijian
	non-Oc.	Acehnese, Karo Batak
(c) indicates lack of control of initiating participant	Oc.	Wayan Fijian
	non-Oc.	Taba, Acehnese, Karo Batak

The most commonly found function of *ta- cognates in non-Oceanic languages is also to derive Undergoer subject verbs without reference to an agent or cause. In Acehnese *teu-* has this function with the abilitive interpretation, but with the accidental meaning an agent may be expressed in the clause in what is a rather marginal construction. In Karo Batak, however, the agent in clauses with *ter-* on the whole seems to be expressed, although this may be simply a coincidence of the data presented. The third function where the *ta- cognates indicate that an agent has done something by accident or involuntarily is found in Taba, Karo Batak and Acehnese. In Taba this function is somewhat restricted and occurs with intransitive motion verbs and also with applicativised verbs of excretion. In Acehnese this function is found with all classes of controlled intransitive verbs, including motion verbs, posture verbs, bodily activity verbs, and mental activity and emotion verbs. In Karo Batak it is only a few intransitive stems which take *ter-* to indicate an involuntary action. More commonly *ter-* has the accidental or involuntary function with transitive stems and syntactically behaves like the abilitive passive *ter-* in that the agent occurs immediately following the verb and any derivational affixes of the verb stem are retained.

So what of Proto Oceanic *ta-? It is useful to consider *ta- in two ways: semantically and syntactically, in a way similar to the description given above of Wayan Fijian.

In functions (a) and (c), **ta-* reflexes and cognates have the meaning of the event or state coming about in an non-controlled way, either through total lack of an initiating participant or because the initiating participant lacks control over the event or state. Thus in function (a) **ta-* reflexes and cognates derive forms denoting the effect of an event or state on an Undergoer participant without reference to any initiating participant. In some languages like Banoni and Bauan Fijian the derived form indicates the complete absence of such a participant. With function (c) **ta-* reflexes and cognates denote that the initiating participant does not have control over the event or state and initiated it either accidentally or involuntarily.

Function (b) is semantically rather different, since an agent or cause participant can be expressed in the clause, but not as subject.

Syntactically the three functions of **ta-* reflexes and cognates pattern in a different way. Functions (a) and (b) both derive Undergoer subject verbs with which the S argument denotes a patient participant. The difference between them is whether an agent or cause can be expressed in the clause. With function (c), on the other hand, the S argument denotes an agent. In Taba and Acehnese, which have split-S systems, the lack of control of the initiating participant means that its grammatical relation changes from that of Actor which is cross-referenced on the verb to that of Undergoer which is not. However, in Wayan Fijian, the other language with this function, both the underived form and the form with *ta-* are Actor subject verbs.

Clearly in Proto Oceanic at least some verbs with **ta-* were Undergoer subject verbs denoting an event or state that came about spontaneously without the involvement of an agent or cause participant. In section 7.3.1 it was noted that in modern languages reflexes of **ta-* occur with verbs denoting process-action situations (cf. Table 7.10). In Chapter 2 it was shown that such verbs in Proto Oceanic tended to be U-process verbs. That is, they had an Undergoer subject intransitive form that denoted the outcome of a process-action and a transitive form with **-i*. If Proto Oceanic **ta-* occurred with such verbs, how did the form with **ta-* differ from the unmarked intransitive form? The types of events denoted by U-process verbs often imply the involvement of an agent; thus the difference between the intransitive form with **ta-* and the unmarked intransitive form would have been that **ta-* indicated the lack of an agent, whereas the unmarked intransitive would have been unmarked with respect to an agent. Proto Oceanic **ta-* with this function would have occurred with U-process verbs, but probably not with U-stative verbs. U-stative verbs tended to denote states and thus did not imply the involvement of

an agent or cause. Such verbs would not, therefore, have occurred with *ta- as it would have been redundant.

In section 7.3.2 two pairs of verbs were reconstructed with an intransitive form with *ta- and a transitive form with *-i. An unmarked intransitive reconstruction was not given. For reconstructions of unmarked intransitive verbs in Proto Oceanic it is difficult to determine whether the verb was an Actor subject one or an Undergoer subject one. For example, the transitive form *Rubat-i- 'to untie, loosen something' and its corresponding *ta- form *ta-Rubat 'be loosened, untied' can be reconstructed. However, reconstructing an unmarked intransitive form is more difficult. Clear reflexes of an apparent form *Rubat are given below. In two languages, Gela and Kwaio (SES) the reflexes are Actor subject verbs, whereas the other reflex from Lewo (SO) is an Undergoer subject verb. From such scant reflexes of the unmarked intransitive form it is not clear what the status of Proto Oceanic *Rubat was. That is to say, was it an Actor subject verb meaning 'to loosen, untie' or was it a Undergoer subject verb meaning 'to be loose, untied'? If the above hypothesis is correct it must have been an Undergoer subject verb, and probably a U-process one.

Gela	luba	*let go, slacken, loose*	ACTOR SUBJECT VERB
Kwaio	luba	*remove, loosen*	ACTOR SUBJECT VERB
Lewo	luβa	*come off*	UNDERGOER SUBJECT VERB

Obviously the unmarked intransitive forms and the *ta- intransitive forms also had a paradigmatic relationship to the corresponding transitive forms. The relationship of the *ta- intransitive form to the transitive forms of U-process verbs would have been a valency-decreasing one. In many modern Oceanic languages *ta- reflexes clearly have only the detransitivising function. This could have developed in two ways. It could be that the unmarked intransitive forms have fallen into disuse, and so only an intransitive *ta- form and a transitive form are left within the paradigm. Or it could be that the verbs which were U-process verbs in Proto Oceanic have changed to Actor subject verbs in the modern languages and so the derivational relationship between the unmarked intransitive form and the intransitive form with *ta- has been lost.

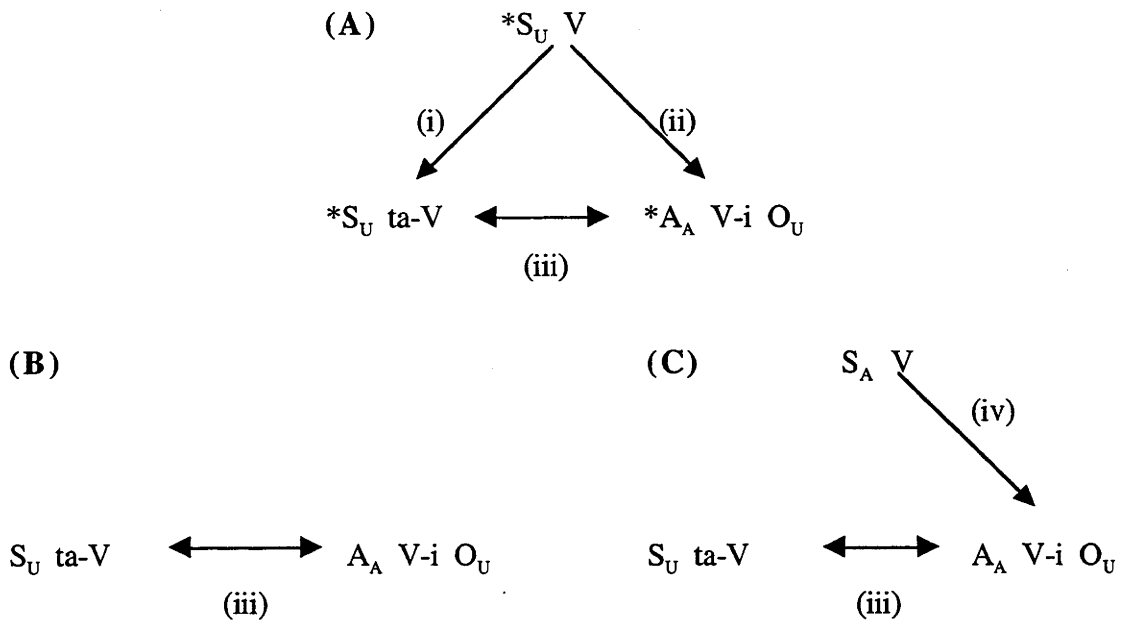
Figure 7.1 shows the derivational relationships between the different forms of verbs which took *ta-, and two ways in which the system has changed. In the proposed Proto Oceanic system, under (A), there were three forms: unmarked intransitive, *S_U V; intransitive with *ta-, *S_U ta-V; and transitive with *-i and/or the object enclitics, *A_A V-i O_U. At this stage there would have been a derivational relationship between the unmarked

intransitive form and the form with **ta-*, such that **ta-* denoted that the event came about spontaneously, that is, without an external agent. This derivational relationship is labelled (i). There was also a derivational relationship between the **ta-* intransitive and the transitive form with **-i* and/or the object enclitics such that the patient participant expressed as S with the **ta-* form corresponded to the O argument of the transitive form, which also took an agent participant expressed as A. In this derivational relationship, labelled (iii), **ta-* could be analysed as a valency-decreasing prefix. The derivational relationship between the unmarked intransitive and the transitive form is labelled (ii) and was one where **-i* and/or the object enclitics had a causative use.

In languages like Saliba and North-East Ambae, the system that occurs is like that under (B) Figure 7.1. In these languages intransitive stems with reflexes of **ta-* are in a paradigmatic relationship with a transitive stem with reflexes of **-i* and/or the object enclitics, but there is no unmarked intransitive. For example, Saliba has a pair of verbs *tà-huhu* 'be plucked' and *huhu-* 'to pluck sth', but has no intransitive form ***huhu*. In languages like these, where the unmarked intransitive form has been lost, the only derivational relationship is between the **ta-* intransitive and the transitive form, and so reflexes of **ta-* are analysed as basically valency-decreasing prefixes. However, the feature of indicating lack of an agent is often still present.

The other way in which languages have changed is that the original unmarked intransitive has changed from an Undergoer subject verb to an Actor subject verb. This type of system is schematised under (C) in Figure 7.1, and occurs in languages like Hoava. Here, the relationship between the unmarked intransitive and the **ta-* intransitive has been lost, due to the change in the role of the S argument with the unmarked form. Again the derivational relationship between the **ta-* intransitive and the transitive form, (iii), is retained, and the reflex of **ta-* can be analysed solely as a valency-decreasing prefix. The relationship between the unmarked intransitive and the transitive form, (iv), has also changed, and is now one where the reflexes of **-i* and/or the object enclitics have an applicative use.

Figure 7.1: Paradigms of verbs with *ta-



Did Proto Oceanic *ta- also occur with Actor subject verbs? In Wayan Fijian *ta-* occurs with at least some Actor subject verbs to indicate that the agent participant lacks full control over the event. Was this also the case in Proto Oceanic? That is, did the 'spontaneous' or non-controlled meaning of *ta- include Actor subject verbs? Wayan Fijian is the only Oceanic language I know of that has such a use of a *ta- form, but cognates of *ta- in three non-Oceanic languages, Taba, Acehnese and Karo Batak, also have this function. Whether Proto Oceanic *ta- occurred with Actor subject verbs remains an open question.

7.4 Summary of Proto Oceanic *MA- and *TA-

At first glance, reflexes of both *ma- and *ta- in Oceanic languages appear to have similar functions, both deriving intransitive Undergoer subject verbs, suggesting the reconstruction of a detransitivising function for both prefixes in Proto Oceanic. Indeed both prefixes can be reconstructed with a couple of verbs deriving intransitive forms with which the S argument corresponds to the A argument of the transitive form of the verb, thus *saʀek-i- 'to tear' and *ma-saʀek 'be/become torn', and *ʀubat-i- 'to unite, loosen' and *ta-ʀubat 'to be loosened, untied'.

However, hints of certain differences between the two prefixes are found in Oceanic languages. For example, in many languages **ma-* is reflected as the initial segments of a substantial number of Undergoer subject verbs which do not seem to be derived from transitive forms. Reflexes of **ta-* are also found fossilised with some verbal forms, but not to the same extent as **ma-*, and also not with verb forms which apparently would have been Undergoer subject forms even when unmarked by the prefix. There are many Undergoer subject verbs reconstructed for Proto Oceanic with and without **ma-* where no apparent difference in meaning can be reconstructed, but the same is not true of **ta-*.

Both**ma-* and **ta-* have cognates in non-Oceanic Austronesian languages. With **ma-* it is the non-Oceanic cognates which allow the second function of **ma-* to be described, as this function is unclear from Oceanic evidence alone. With **ta-* the non-Oceanic cognates do not play such a major role in determining its function, perhaps because **ta-* was still productive in Proto Oceanic.

I propose that Proto Oceanic **ma-* originally had two functions. The first was to derive an intransitive form with an Undergoer subject verb from a transitive one. The second was to derive an Undergoer subject verb that indicated a stative property. This function of **ma-* was probably semi-productive when it was inherited into Proto Oceanic, as forms with and without **ma-* are reconstructable. However, as no modern language that I know of reflects this function even semi-productively, it was obviously in the process of being lost at the time Proto Oceanic broke up. Some forms which once would have had this function have in fact been inherited into Proto Oceanic with a fossilised initial **ma-*.

Proto Oceanic **ta-* also derived an intransitive verb with an Undergoer subject from an intransitive one. It is proposed that there was also a paradigmatic relation between an intransitive form with **ta-* and an unmarked intransitive form. The basic function of **ta-* was to indicate that the event or state denoted by the verb was spontaneous or non-controlled. Thus **ta-* occurred with U-process verbs to indicate that the patient was affected by the event or state without the involvement of an agent or cause participant. Proto Oceanic **ta-* may have also occurred with Actor subject verbs indicating that the agent lacked control over the event.

8 *verb classes & valency-changing devices*

8.1 THE PROTO OCEANIC SYSTEM OF VERB CLASSES AND VALENCY-CHANGING DEVICES

This thesis has presented a reconstruction of five valency-changing devices and a system of verb classes for Proto Oceanic. The valency-changing devices looked at are: **-i*; **akin[i]*; **pa[ka]-*; **ma-*; and **ta-*. It has become clear from the study of these forms that morphosyntactic classes of verb roots can be reconstructed on the basis of their occurrence with different valency-changing devices and their behaviour with these devices. It has also become clear that the valency-changing devices are best described as part of a system of verb classes since: (i) they had different uses with different types of verbs; and (ii) they occurred with only particular types of verbs.

8.1.1 PROTO OCEANIC VALENCY-CHANGING DEVICES

Proto Oceanic had a number of ways by which the valency of a verb could be altered. Table 8.1 shows the valency-changing devices of Proto Oceanic and their derivational uses. Proto Oceanic had three valency-increasing devices: **-i*; **akin[i]*; and **pa[ka]-*, and at least three valency-decreasing devices: reduplication; **ma-*; and **ta-*[1].

[1] Proto Oceanic also had a reciprocal prefix **paRi-*, but it has not been looked at in this thesis.

Table 8.1: Proto Oceanic valency-changing devices and their derivational uses

valency-decrease	derivational relationship	valency-increase
	(i)	
reduplication	$\mathbf{S_X}$ V_{INTR}	
	$\mathbf{A_X}$ V_{TR} O_Y	**-i; *akin[i]*
	(ii)	
**ma-; *ta-*	$\mathbf{S_X}$ V_{INTR}	
	A_Y V_{TR} $\mathbf{O_X}$	**pa[ka]-; *-i; *akin[i]*

As can be seen from Table 8.1 there are two basic types of valency-changing derivations: (i) those where the intransitive S argument and the transitive A argument correspond; and (ii) those where the intransitive S argument and the transitive O argument correspond. The arguments correspond in the sense that the participants expressed by each argument have the same semantic role with respect to the verb[2]. With valency-decreasing derivations of type (i) the participant expressed as the O argument with the transitive form of the verb is not mentioned with the intransitive form, whereas with type (ii) valency-decreasing derivations the participant expressed as the transitive A argument is not mentioned with the intransitive form of the verb. With valency-increasing derivations of type (i) the transitive form of the verb has an extra participant expressed as O, and with type (ii) valency-increasing derivations an extra participant is introduced as the A argument with the transitive form of the verb. These valency-increasing derivations are called the applicative and causative, respectively.

In Proto Oceanic most of the valency-changing devices had only one derivational use. Reduplication indicated valency-decrease where the O argument was deleted from the clause. The prefixes **ma-* and **ta-* were both valency-decreasing devices with which the A argument was deleted from the clause. The prefix **pa[ka]-* was a valency-increasing device with a causative use. However, the transitive suffix **-i* (and/or object enclitics) and **akin[i]* had both types of valency-increasing derivations. With some verbs they had an applicative use and with other verbs a causative use.

[2] The subscript letters with each argument in Table 8.1 indicate the semantic roles.

8.1.1.1 VALENCY-DECREASING REDUPLICATION

Valency-decreasing reduplication was looked at briefly in Chapter 2, Section 2.3.6.1. In Proto Oceanic some verbs had a transitive form with **-i* and/or the object enclitics and a reduplicated intransitive form. The derivational relationship between the two forms was one with which the S and A arguments corresponded and the transitive O argument was not mentioned with the intransitive form of the verb. For example, the transitive verb **kani-* 'to eat sth' and its intransitive derivative **kani-kani* 'to eat' can be reconstructed for Proto Oceanic.

8.1.1.2 THE **MA-* PREFIX

Proto Oceanic **ma-* had two uses. With some verbs **ma-* was a valency-decreasing prefix with which the patient participant, expressed as the O argument with the transitive form of the verb, was expressed as the S argument of the intransitive form with **ma-*. For example, Proto Oceanic **liŋi-* 'to pour sth out' had an intransitive form **ma-liŋi* 'to be poured, spilt'. In modern languages reflexes of **ma-* with this use occur with verbs that are high in transitivity. That is, with verbs denoting process-action situations, where the participant expressed as the A argument is an animate causer or agent, and the participant expressed as the O argument is one that is totally (or at least highly) affected by the situation denoted by the verb. Thus verbs taking reflexes of **ma-* in modern languages have meanings like 'break', 'smash', 'tear', 'pour' and 'split'. The same was probably also true of Proto Oceanic. That is, Proto Oceanic valency-decreasing **ma-* would have occurred with verbs high in transitivity.

The second use of **ma-* was to derive an Undergoer subject verb that indicated a stative property. In Proto Oceanic this use of **ma-* is demonstrated in the reconstruction of a number of Undergoer subject verbs denoting properties which had two forms, one with **ma-* and one without. For example, two forms **ma-koto* and **koto* 'to be straight' are reconstructable for Proto Oceanic, but with no apparent difference in meaning. This use of **ma-* is not reflected, even semi-productively, in modern Oceanic languages, and so was obviously in the process of being lost in Proto Oceanic. However, it can be seen to reflect a more productive Proto Malayo-Polynesian use, where **ma-* derived stative property verbs from roots that were probably nominals.

The prefix **ma-* was also present in Proto Oceanic as the fossilised initial segment of other Undergoer subject verbs. For example, a Proto Oceanic form

maqasin 'be salty, sharp of taste' is reconstructable, reflecting Proto Malayo-Polynesian **ma-qasin* 'salty'. For Proto Malayo-Polynesian the unmarked root **qasin* 'salty taste' is also reconstructable. In Proto Malayo-Polynesian this **ma-* had the same function as that described above, but the unmarked forms had been lost prior to Proto Oceanic which only had a form with a fossilised **ma-* segment.

**Ma-* is also reflected in Proto Oceanic as the initial segment of a few experiential verbs, with which the S argument is a human experiencer. For example, Proto Oceanic **matakut* 'be afraid, fear' reflects Proto Malayo-Polynesian **takut* 'frighten'. Chapter 7 describes **ma-* in detail.

8.1.1.3 THE **TA-* PREFIX

Proto Oceanic **ta-* also had a valency-decreasing use, and occurred with process-action verbs. The relationship between an intransitive verb with **ta-* and the transitive form with **-i* and/or the object enclitics was one where the S and O arguments corresponded, both denoting a patient participant, and the transitive A argument was not mentioned. For example, the Proto Oceanic transitive verb **Rubat-i-* 'to loosen, untie sth' had an intransitive form **ta-Rubat* 'to be loose, untied'.

Intransitive forms with **ta-* also had a derivational relationship with an unmarked intransitive form. Both these intransitive forms took a patient participant as S, and the difference between them was that **ta-* indicated that the event had come about spontaneously, without an external agent. The unmarked intransitive form, on the other hand, was unmarked for agent, and with particular verbs an agent participant would have been implied. A more detailed analysis of **ta-* is presented in Chapter 7.

8.1.1.4 TRANSITIVISING **-I*

Proto Oceanic **-i* had two transitivising functions; with Actor subject verbs it had an applicative use and with Undergoer subject verbs it had a causative use. In its applicative use **-i* denoted an O argument that had the role of location, goal, stimulus or addressee.

As described in Chapter 3, the distribution of **-i* was phonologically determined. It occurred with consonant-final and **a*-final verb stems. Other vowel-final

verb stems took the object enclitics directly. Thus, Proto Oceanic **kinit-i-* 'to pinch, pluck sth' and **kita-i-* 'to see sth' are reconstructable with the suffix **-i*, whereas Proto Oceanic **wase-* 'to distribute sth' is reconstructable as having taken the object enclitics directly. Verbs of the appropriate phonological shape which took other valency-increasing devices also took **-i*. For example, **matakut* 'be afraid' had a causative form with **pa[ka]-*, **pa[ka]-matakut-i-* 'to frighten s.o./sth' that took both **pa[ka]-* and **-i*.

8.1.1.5 **AKIN[I]*

Proto Oceanic **akin[i]* had a participant role marking function, denoting different types of participants with different classes of verbs. Thus **akin[i]* was in contrast with the transitive suffix **-i* and/or object enclitics which denoted participants with other roles. Table 8.2 shows the types of roles which occurred as the O argument of a transitive construction with **-i* and/or the object enclitics and the types of roles denoted by **akin[i]*. With some verbs **akin[i]* was a transitivising suffix and the introduced participant was expressed as an O argument. With other verbs **akin[i]* was a verbal preposition and the introduced participant was expressed as an oblique argument.

Table 8.2: Types of roles denoted by **-i* and **akin[i]*

verb type	roles denoted by O with **-i* and/or object enclitics	roles denoted by **akin[i]*
motion verbs	location / goal	concomitant
psychological and emotional states	stimulus	cause / stimulus
speech and cognition	addressee	content
excretion/secretion	location	product
process-action verbs	patient	instrument, beneficiary

Many process-action verbs were Undergoer subject verbs, and thus **-i* (and/or the object enclitics) in actual fact denoted a cause or agent participant, rather than the patient one which occurred as the O argument. With process-action verbs **akin[i]* denoted an instrument, and perhaps also a beneficiary and was apparently in contrast with the form with **-i* and/or the object enclitics rather than with the intransitive form of the verb.

Proto Oceanic **akin[i]* was both a free form and a bound form. As a free form **akin[i]* was probably a verbal preposition, and as a bound form it was a verbal suffix. Proto Oceanic **akin[i]* reflects Proto Malayo-Polynesian **akən*. It seems likely that Proto Malayo-Polynesian **akən* was a preposition that had been reanalysed as a verbal preposition in Proto Oceanic. As a verbal preposition **akən* came to take the suffix **-i* and the verbal object enclitics. This led to an irregular change in the medial vowel, and the sequence **akən-i-* became **akin-i-* in Proto Oceanic, through vowel assimilation.

It is proposed here that **akin[i]* became a verbal suffix through the reinterpretation of an intransitive verb followed by a preposition as a verb plus modifier and then a verb plus a suffix. That is, a structure like (i) in Figure 8.1 has been reinterpreted as a structure like (ii).

Figure 8.1: Two analyses of clauses with **akin[i]*

(i) $[\text{SUBJ=V}]_{VC}$ $[\textit{akin-i}\text{=OBJ NP}_X]_{PP}$

(ii) $[\text{SUBJ=V } \textit{akin-i}\text{=OBJ}]_{VC}$ $[O_X]_{NP}$

This process of reanalysis was a gradual one, occurring on a lexeme by lexeme basis, and occurring first with verbs with which the verb stem plus **akin[i]* had developed a lexicalised meaning. The process of reanalysis had already begun prior to Proto Oceanic, and with at least one verb, **taŋis* 'cry', a form with **akin[i]* as a suffix, **taŋis-akin-i-* 'to cry for s.o., mourn', is reconstructable for Proto Oceanic. Proto Oceanic **akin[i]* was probably also a suffix with a number of other verbs.

Reflexes of **akin[i]* also have causative uses, often with motion verbs, and it seems likely that the same was true of Proto Oceanic. On the basis of both Oceanic and non-Oceanic data it appears that the causative use of **akin[i]* developed from the applicative one. A change from an applicative to a causative use can be explained as a reinterpretation of the semantic role of the A argument in ambiguous constructions with motion verbs. That is, the A argument of a transitive motion verb with **akin[i]* changed from being interpreted as both an initiator and an experiencer of the motion, to being interpreted as simply the initiator of the motion. Thus the structure of a motion verb and **akin[i]* changed from an applicative one with a concomitant role as O to a causative one. The causative use of **akin[i]* reflexes in modern languages has subsequently been extended to non-motion verbs.

8.1.1.6 THE CAUSATIVE PREFIX **PA[KA]-*

Proto Oceanic had two prefixes, **pa-* and **paka-*, both of which had a causative use. That is, they both derived transitive verbs from intransitive verbs such that the S and O arguments corresponded, and a causer participant was introduced as A. In pre-Proto Oceanic the difference between the two prefixes was that **pa-* occurred with Actor subject verbs and **paka-* with Undergoer subject verbs, but this distinction had fallen into disuse in Proto Oceanic. In the majority of modern Oceanic languages only one or other of the prefixes is reflected and has been generalised in use. However, several Vanuatu languages and Nakanai (MM) have reflexes of both prefixes where the **pa-* reflex has a causative use and the **paka-* reflex derives multiplicative forms from numerals. These languages allow the reconstruction of a multiplicative use with numerals for **paka-*, but not **pa-*, in Proto Oceanic. Thus **paka-tolu* 'to do/happen three times' was derived from **tolu* 'three'. Numerals in Proto Oceanic were Undergoer subject verbs, so this use of **paka-* can be seen to be a remnant of the earlier restriction of **paka-* to use with Undergoer subject verbs. Proto Oceanic **pa[ka]-* also derived verbal modifiers from Undergoer subject verbs, such as **patuR pa[ka]-qitik* (weave CAUS-small) 'to weave small'. Chapter 6 describes Proto Oceanic **pa-* and **paka-* in detail.

8.1.2 PROTO OCEANIC VERB CLASSES

Verb roots in Proto Oceanic were divided into several morphosyntactic classes on the basis of their behaviour as both intransitive and transitive forms. The criteria with which the verbs were classified were: (i) the macrorole of the intransitive subject and the relationship between the intransitive and transitive forms of a verb; and (ii) the types of valency-changing devices with which a verb occurred. These morphosyntactic classes tended to correlate with semantic classes of verbs.

The two major classes of verbs in Proto Oceanic were: Undergoer subject verbs and Actor subject verbs. Undergoer subject verbs had an S argument with the macrorole of Undergoer. The relationship between the intransitive and transitive forms of an Undergoer subject verb was one where the intransitive S argument corresponded to the transitive O argument. Actor subject verbs had an S argument with the macrorole of Actor. The relationship between the intransitive and transitive forms of an Actor subject verb was one where the intransitive S argument corresponded to the transitive A

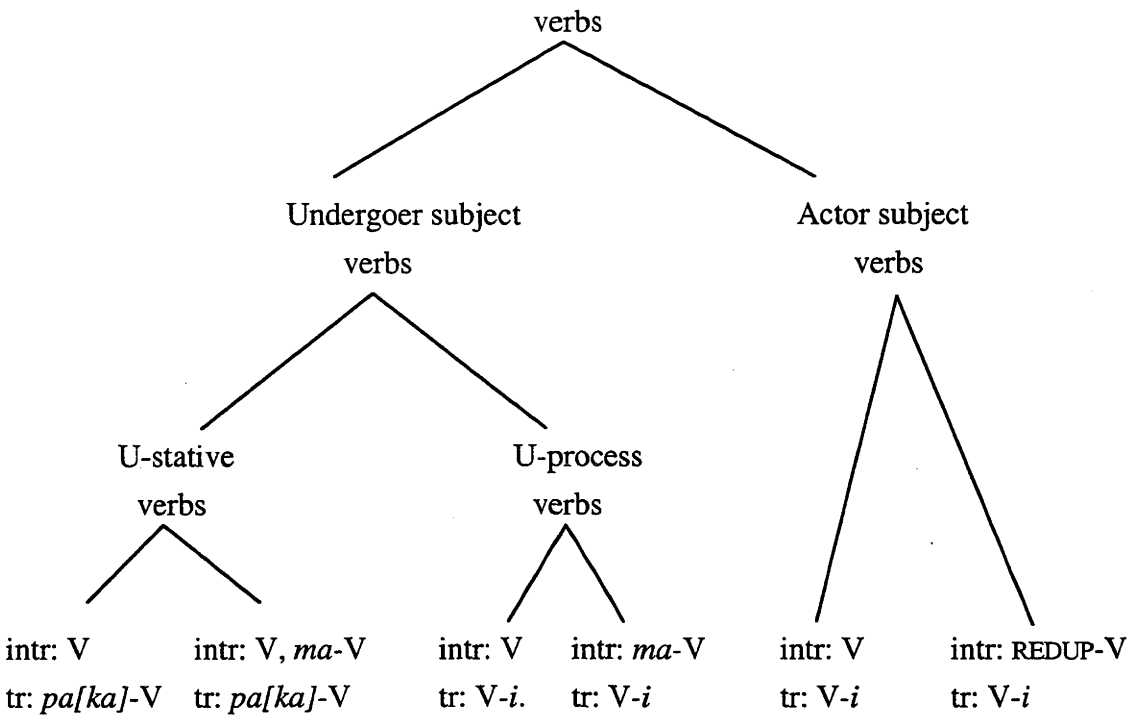
argument. Each of these classes was further subdivided on the basis of the different valency-changing devices with which they occurred.

There were two classes of Undergoer subject verbs: U-stative verbs and U-process verbs. As their names suggest, U-stative verbs tended to be verbs denoting states and U-process verbs tended to be verbs denoting processes and process-actions. Morphologically these two classes differed in the valency-increasing devices with which they occurred. U-stative verbs had transitive forms with the causative prefix **pa[ka]-*, and U-process verbs had transitive forms with the transitive suffix **-i* and/or the object enclitics. U-stative and U-process verbs were each divided into two groups, determined by whether they had an intransitive form with **ma-* or not. That is, one group of U-process verbs had unmarked intransitive forms, and the other had intransitive forms with **ma-*. One group of U-stative verbs had only an unmarked intransitive form, and the other had two intransitive forms, one unmarked and one with **ma-*.

Actor subject verbs tended to denote action or process-action situations. They were also divided into two groups on the basis of their intransitive forms: some were unmarked and others were reduplicated.

Figure 8.2 shows the proposed Proto Oceanic verb classes. The boundary between process-action verbs that were Undergoer subject verbs and Actor subject verbs was determined by the affectedness of the patient participant. Process-action verbs with which the patient participant was more highly affected were Undergoer subject.

Figure 8.2: Proto Oceanic verb classes



8.1.3 Classes of verbs and the valency-changing devices with which they occurred

This section gives an overview of each class of verbs and the morphology with which they occurred.

Table 8.3 illustrates derivatives of U-stative verb roots. U-stative verbs occurred intransitively as an unmarked stem which generally took a patient participant as S. U-stative verbs also had a transitive form with **pa[ka]-*, plus the transitive suffix **-i* and/or the object enclitics. This form generally took an agent participant expressed as A and a patient participant expressed as O. For example, Proto Oceanic had the intransitive/transitive pair **ponuq* 'to be/become full' and **pa[ka]-ponuq-i-* 'to make full, to fill'. Some U-stative verbs had two intransitive forms, one unmarked and one with the prefix **ma-*. These forms with **ma-* were the same as the unmarked intransitive forms and generally took a patient participant as S. For example, both **koto* and **makoto* meant 'to be/become straight'. The transitive forms of such verbs were based on the unmarked stem, thus Proto Oceanic probably had a form **pa[ka]-koto-* 'to

straighten', but not ***pa[ka]-makoto-*. With some U-stative verbs an original **ma-* had become a fossilised part of the stem, as the unmarked intransitive form had been lost. This is the case with Proto Oceanic **maqurip* 'live, be alive' which is cognate with Proto Malayo-Polynesian **ma-qudip* 'alive' and **qudip* 'life, alive'. Although this verb comprised what was originally a root plus the **ma-* prefix, in Proto Oceanic it behaved like a U-stative verb with an unmarked intransitive form. That is, it had only one intransitive form and the transitive form was derived with the causative prefix, thus **paka-maqurip-i-* 'to make live, save'.

Table 8.3: U-stative verbs and their derivatives[3]

(i) unmarked stem	S_X V	S is in or enters into state, implied lack of Actor
(ii) stem with **ma-*	S_X ma-V	S is in or enters into state, implied lack of Actor
(iii) stem with **pa[ka]-*	A_Y paka-V-i/OBJ O_X	A causes O to be in or enter into state

Table 8.4 gives the derivatives of U-process verb roots. Most U-process verbs had an unmarked intransitive stem which generally took a patient participant as the S argument. These forms were unmarked with respect to an agent participant. That is, with some verbs an agent participant was implied, and with others one was not, determined by the meaning of the verb. Some U-process verbs could take the prefix **ta-* . Forms with **ta-* were also intransitive and took a patient participant as S, but **ta-* indicated the lack of any agent participant. Some U-process verbs had an intransitive form with **ma-*. These were verbs high in transitivity, such as **saRek-i-* 'to tear sth' which had an intransitive form **ma-saRek* 'to be torn'. U-process verbs had transitive forms with **-i* and/or the object enclitics, with which an agent participant was generally expressed as A and a patient participant as O. There were also a few U-process verbs which could take **akin[i]*. Some of these were motion verbs with which **akin[i]* had a causative use. Such forms had a causer participant as A and the moving participant as O. Other U-process verbs with **akin[i]* seem to have been in a derivational relationship

[3] The subscript letters in this table, and those following, denote the set of participants that can occur as each grammatical function. For example, the S argument of a U-stative verb had the macrorole of Undergoer and this included participants with the roles of patient and experiencer. This same set of participants also occurred as the O argument of the transitive form of the verb with **pa[ka]-*.

with the forms with **-i*. Rather than taking a patient participant as O these forms took an instrument as O.

Table 8.4: U-process verbs and their derivatives

(i) unmarked stem	S_X V	S undergoes event, unmarked for Actor
(ii) stem with **ta-*	S_X ta-V	S undergoes event, no external Actor
(iii) stem with **ma-*	S_X ma-V	S undergoes event, unmarked for Actor
(iv) stem with **-i*	A_Y V-i/OBJ O_X	A causes O to undergo event
(v) stem with **akin[i]*	A_Y V-akini=OBJ O_X	A causes O to undergo event
	A_Y V-akini=OBJ O_{INST}	A carries out event using O

Table 8.5 gives the derivatives of Actor subject verb roots. Most Actor subject verbs had an unmarked intransitive stem, and generally took an agent participant as S. Some Actor subject verbs had a reduplicated intransitive form[4]. Actor subject verbs had a transitive form with **-i* and/or the object enclitics which generally took an agent or experiencer participant as A and one of a number of types of participants, including patient, goal and cause, as O. Many Actor subject verbs also had a causative form with **pa[ka]-*. These forms took a causer participant as A and generally took an agent participant as O. Actor subject verbs also occurred with **akin[i]*. Verbs which took **akin[i]* as a verbal suffix took an Actor participant as A, and the O argument had one of a range of semantic roles determined by the verb stem.

[4] Although the reduplication is indicated on the left of the verb stem in Table 8.5, no claims are being made about whether this was really the case.

Table 8.5: Actor subject verbs and their derivatives

(i) unmarked stem	S_Y V	S carries out event
(ii) reduplicated stem	S_Y REDUP-V	S carries out event
(iii) stem with *-*i*	A_Y V-i/OBJ O_X	A carries out event, affecting O
(iv) stem with **pa[ka]-*	A_{CAUS} V-i/OBJ O_Y	A makes O carry out event
(v) stem with **akin[i]*	A_Y V-akin-i=OBJ O_Z	A carries out event along with, because of, about, or producing O

8.2 METHODS OF RECONSTRUCTION

Ideally, the reconstruction of a system of verb classes and valency-changing devices would be based on a large sample of lexical reconstructions from which patterns of behaviour can be determined. However, reconstructing not only a verb stem, but also its derivatives, and the derivational relationship between them is difficult. Reconstruction of verb classes and valency-changing devices can also be based on the comparison of the systems found in daughter languages, but the reconstruction of patterns rather than individual lexical items lacks the particularising results which makes a reconstruction more secure.

The examination of *-*i* and its distribution, presented in Chapter 3, followed both methods of reconstruction. Pairs of verbs with and without *-*i* are reconstructable, and it was on the basis of these lexical reconstructions that the distribution of *-*i* as occurring with consonant-final and **a*-final verb stems, but not with other vowel-final verb stems, was reconstructed. Further support for the reconstruction of such a pattern was found in the distributional patterns of reflexes of *-*i* in several modern languages.

However, with the other valency-changing devices the reconstruction of lexical items with and without each device was much more difficult. Thus, the reconstruction had to rely much more on patterns of behaviour in the modern languages. For example, reflexes of **ta-* with similar behaviour are found in a wide range of modern Oceanic languages, but only two verbs were found to be reconstructable for Proto Oceanic with and without **ta-*. Hence, the reconstruction of **ta-* was based primarily on patterns of behaviour in modern languages, with the two lexical reconstructions given as supporting evidence.

The reconstruction of verb classes was based almost entirely on patterns found in modern languages. Verb classes in Proto Oceanic were based on both macrorole of the intransitive subject and the valency-changing devices with which they occurred. Often the modern reflexes of a particular verb differ in respect to the way in which the participants expressed as S are grammaticised, and it is not clear whether to reconstruct such verbs as Actor subject or Undergoer subject. And as mentioned above reconstructing a verb stem and its derivatives is also difficult. For these reasons the reconstruction of verb classes was based on the comparison of verb classes in modern languages. However, despite the variation in the grammaticisation of the macrorole of S and the derivatives of the modern reflexes of particular verbs, there is a strong degree of consistency in the types of classes found in modern languages and the correlations between the morphosyntactic classes and semantic types of verbs. This allowed the reconstruction of a system of verb classes for Proto Oceanic.

This study of Proto Oceanic verb classes and valency-changing devices has demonstrated the use of both lexical reconstruction and the reconstruction of patterns in morphological reconstruction. While lexical reconstruction undoubtedly leads to a more secure reconstruction for a proto-language, it is not always possible or practical. The examination of Oceanic verb classes presented in Chapter 2, shows how the reconstruction of a morphosyntactic system does not always need to be based on a large sample of lexical reconstructions.

Appendix A: languages referred to in the thesis

This appendix gives a list of the languages referred to in the thesis, along with their subgroup, their location and the source used. The full details of the sources of data are given in the reference list. As well as these sources, I used the following computer files of collections of lexical data:

(i) For Western Oceanic languages, computer files of lexical data collated by Malcolm Ross (Research School of Pacific and Asian Studies, Australian National University) during the research leading to the publication of Ross (1988).
(ii) For New Caledonian languages, a computer file of lexical data collected from various sources by members of the Department of Linguistics, Research School of Pacific and Asian Studies, Australian National University (NewCal lexis).
(iii) For Micronesian languages, a computer file of lexical data collated by members of the Department of Linguistics, University of Hawaii.

The abbreviations for the subgroups are:

Adm	Admiralties	Pn	Polynesian
CMP	Central Malayo-Polynesian	PT	Papuan Tip
Fij	Fijian	SES	Southeast Solomonic
Fm	Formosan	SHWNG	South Halmahera/ West New Guinea
Mic	Micronesian	SO	Southern Oceanic
MM	Meso-Melanesian	St.M	St Matthias
NNG	North New Guinea	WMP	Western Malayo-Polynesian

1. OCEANIC LANGUAGES

language	subgroup	location	source
'Are'are	SES	Malaita, Solomon Islands	Geerts (1970)
Alo Teqel	SO	Banks Islands, Vanuatu	Codrington (1885)
Amara	NNG	New Britain, PNG	Ross (1988)
Anejom̃	SO	Aneityum,Vanuatu	Lynch (2001)
Anuta	Pn	Santa Cruz, Solomon Islands	Biggs (n.d.)
Arag	SO	Pentecost, Vanuatu	Codrington (1885)
Arop-Lukep	NNG	off Huon Peninsula, PNG	D'Jernes (in press)
Arosi	SES	San Cristobal (Makira), Solomon Islands	Fox (1978), Capell (1971)
Aua	Adm	western Admiralty Islands, PNG	Ross (1988)
Babatana	MM	Choiseul, Solomon Islands	Pawley (1973), Ross (1988)
Bali	MM	French Islands, PNG	Ross (in press-a)
Banoni	MM	Bougainville, PNG	Lincoln (1976)
Bariai	NNG	New Britain, PNG	Gallagher (n.d.)
Bauan Fijian	Fij	eastern Fiji	Capell (1968), Biggs (1974), Arms (1974), Pawley (1986), Geraghty (1983)
Bay of SS. Philip & James	SO	Santo, Vanuatu	Codrington (1885)
Bilur	MM	New Britain, PNG	Ross (1988)
Blablanga	MM	Santa Isabel, Solomon Islands	Pawley (1973), Ross (1988)
Bola	MM	New Britain, PNG	Ross (1988)
Boumaa Fijian	Fij	Taveuni, Eastern Fiji	Dixon (1988)
Bugotu	SES	Santa Isabel, Solomon Islands	Ivens (1940)
Buhutu	PT	Milne Bay Province, PNG	Russ Cooper (pers.comm.)
Bulu	MM	New Britain, PNG	Ross (1988)

language	subgroup	location	source
Carolinian	Mic	Saipan, Northern Marianas, Micronesia	Jackson & Marck (1991)
Chuuk	Mic	Truk Atolls, Caroline Islands, Micronesia	Goodenough & Sugita (1980, 1990)
Erromangan (Sye)	SO	Erromango, Vanuatu	Crowley (1998)
East Futunan	Pn	Futuna, Polynesia	Biggs (1974), Moyse-Faurie (1993)
Fate	SO	Efate, Vanuatu	Codrington (1885)
Ganoqa	MM	Ganongga Island, Solomon Islands	Keetle (2000)
Gao	MM	Santa Isabel, Solomon Islands	Ross (1988)
Gapapaiwa	PT	Milne Bay Province, PNG	McGuckin (n.d., pers.comm.)
Gedaged	NNG	north coast, PNG	Lichtenberk (1985)
Gela	SES	Florida, Solomon Islands	Fox (1955)
Ghari	SES	Guadalcanal, Solomon Islands	Hill (n.d.-a)
Gitua	NNG	Houn Peninsula, PNG	Ross (1988)
Gog	SO	Banks Islands, Vanuatu	Codrington (1885)
Gumawana	PT	D'Entrecasteaux Islands, PNG	Olson (1992, n.d.)
Hawai'ian	Pn	Hawai'i	Lynch (1998)
Hoava	MM	New Georgia, Solomon Islands	Davis (1997)
Hote	NNG	Huon Gulf, PNG	Ross (1988)
Iduna	PT	D'Entrecasteaux Islands, PNG	Ross (1988)
Inakona	SES	Guadalcanal, Solomon Islands	Tryon & Hackman (1983)
Kairiru	NNG	north coast, PNG	Wivell (1981a, 1981b), Ross (in press-b)
Kaiwa	NNG	Huon Gulf	Ross (1988)

language	subgroup	location	source
Kara	MM	New Ireland, PNG	Schlie (n.d.), Schlie & Schlie (n.d.)
Keapara	PT	central Papua, PNG	Ross (1988)
Kilenge	NNG	New Britain, PNG	Ross (1988)
Kiribatese (Gilbertese)	Mic	Kiribati, Micronesia	Sabatier (1971), Harrison (1982)
Kokota	MM	Santa Isabel, Solomon Islands	Palmer (1999)
Kosraean	Mic	Kusaie Island, Caroline Islands, Micronesia	Lee (1975, 1976)
Kove	NNG	New Britain, PNG	Counts (1969), Ross (1988)
Kumak	SO	New Caledonia	*NewCal lexis*
Kwamera	SO	Tanna, Vanuatu	Lindstrom & Lynch (1994)
Kwaio	SES	Malaita, Solomon Islands	Keesing (1975, 1985)
Kwara'ae	SES	Malaita, Solomon Islands	Deck (1934), Keesing (n.d.)
Label	MM	New Ireland, PNG	Ross (1988)
Labu	NNG	Huon Gulf	Siegel (1984)
Lakon	SO	Banks Islands, Vanuatu	Codrington (1885)
Lametin	SO	Espiritu Santo, Vanuatu	Tryon (1976)
Lau	SES	Malaita, Solomon Islands	Fox (1974)
Lengo	SES	Guadalcanal, Solomon Islands	Tryon & Hackman (1983)
Leon & Sasar	SO	Banks Islands, Vanuatu	Codrington (1885)
Lewo	SO	Epi, Vanuatu	Early (1994)
Lihir	MM	off New Ireland, PNG	Ross (1988)
Lo	SO	Torres Islands, Vanuatu	Codrington (1885)
Longgu	SES	Guadalcanal, Solomon Islands	Hill (1992, n.d.-b)
Loniu	Adm	eastern Admiralty Islands, PNG	Hamel (1994)

language	subgroup	location	source
Lou	Adm	eastern Admiralty Islands, PNG	Stutzman (n.d.)
Lusi	NNG	New Britain, PNG	Ross (1988)
Maewo	SO	Maewo, Vanuatu	Codrington (1885)
Malalamai	NNG	Huon Peninsula, PNG	Ross (1988)
Malango	SES	Guadalcanal, Solomon Islands	Tryon & Hackman (1983)
Manam	NNG	Manam Island, PNG	Lichtenberk (1978), Lichtenberk (1983), Blewett & Blewett (n.d.)
Mangap-Mbula	NNG	Umboi Island, New Britain Province, PNG	Bugenhagen (1995), Bugenhagen & Bugenhagen (n.d.)
Mangsing	NNG	New Britain, PNG	Milligan (n.d.)
Māori	Pn	New Zealand	Lynch (1998)
Maringe (Cheke Holo)	MM	Santa Isabel, Solomon Islands	White (1988)
Marshallese	Mic	Marshall Islands	Abo et.al. (1976)
Marquesan	Pn	Marquesas Islands, Polynesia	Lynch (in press)
Matukar	NNG	Madang coast, PNG	Ross (1988)
Medebur	NNG	Madang coast, PNG	Ross (1988)
Mekeo	PT	central Papua, PNG	Jones (1998)
Meramera	MM	New Britain, PNG	Ross (1988)
Merlav	SO	Banks Islands, Vanuatu	Codrington (1885)
Mindiri	NNG	Madang coast, PNG	Ross (1988)
Misima	PT	Misima Island, PNG	Callister (n.d.)
Mokilese	Mic	Mokil Atoll, Caroline Islands, Micronesia	Harrison (1976, 1977)
Molima	PT	D'Entrecasteaux Islands, PNG	Engkvist & Engkvist (n.d.)
Mono-Alu	MM	Shortland Islands, Solomon Islands	Fagan (1986)
Mortlockese	Mic	Caroline Islands, Micronesia	*NewMic lexis*

language	subgroup	location	source
Mosin	SO	Banks Islands, Vanuatu	Codrington (1885)
Mota	SO	Banks Islands, Vanuatu	Codrington (1885), Codrington & Palmer (1896)
Motlav	SO	Banks Islands, Vanuatu	Codrington 1885
Motu	PT	central Papua	Lister-Turner & Clark (1954)
Mussau	St.M	St. Matthias group, PNG	Ross (in press-c), my fieldnotes
Mwotlap	SO	Vanuatu	Codrington (1858)
Nadrogā	Fij	southwest Viti Levu	Geraghty (in press)
Nakanai	MM	New Britain, PNG	(Johnston 1980)
Nalik	MM	New Ireland, PNG	Volker (1994)
Nduke	MM	Nduke Island, Solomon Islands	Scales (n.d.)
Nehan	MM	Nissan Islands, PNG	Glennon (n.d.)
Nemi	SO	New Caledonia	*NewCal lexis*
Nguna	SO	Efate, Vanuatu	Tryon (1976)
Niuean	Pn	Niue, Polynesia	Biggs (n.d.)
Norbarbar	SO	Banks Islands, Vanuatu	Codrington (1885)
North-East Ambae	SO	Ambae Island, Vanuatu	Hyslop (1998)
Notsi	MM	New Ireland, PNG	Ross (1988)
Nukuoro	Pn	Caroline Islands, Microesia	Biggs (n.d.)
Paamese	SO	Paama, Vanuatu	Crowley (1982, 1992)
Pak	SO	Banks Islands, Vanuatu	Codrington (1885)
Papapana	MM	Bougainville, PNG	Ross (1988)
Patpatar	MM	New Ireland, PNG	Condra (n.d.)
Pingilapese	Mic	Pingilap Atoll, Caroline Islands, Micronesia	Good & Welley (1989)
Piva	MM	Bougainville, PNG	Ross (1988)
Poeng	NNG	New Britain, PNG	Madden (n.d.)
Ponapean	Mic	Ponape Island, Caroline Islands, Micronesia	Rehg & Sohl 1979, Rehg 1981

language	subgroup	location	source
Pono	NNG	off Huon Peninsula, PNG	D'Jernes & D'Jernes (n.d.)
Psohoh	NNG	New Britain	Ross (1988)
Puluwat	Mic	Trukic group, Caroline Islands, Micronesia	Elbert (1972)
Ramoaaina	MM	off New Britain, PNG	Fritzell & Davies (n.d.)
Roviana	MM	New Georgia, Solomon Islands	Waterhouse (1949), Corston (1996, in press)
Sa'a	SES	Malaita, Solomon Islands	Ivens (1918)
Saliba	PT	Saliba Island, Papua New Guinea	Mosel (1994), Margetts (1999)
Samoan	Pn	Samoa	Mosel & Hovdhaugen (1992), Milner (1966)
Seimat	Adm	western Admiralty Islands, PNG	(Ross 1988)
Sesake	SO	Emai, Vanuatu	Codrington (1885)
Siar	MM	New Ireland, PNG	Ross (in press-d)
Sinaugoro	PT	central Papua, PNG	Tauberschmidt (1999)
Sio	NNG	Huon Peninsula, PNG	Ross (1988)
Sissano-Arop	NNG		
Sisiqa	MM	Choiseul, Solomon Islands	Ross (in press-e)
Southeast Ambrym	SO	Ambrym, Vanuatu	Crowley (in press)
Sudest	PT	Sudest Island, PNG	Anderson (n.d.)
Sursurunga	MM	New Ireland, PNG	Hutchisson (n.d.)
Tabar	MM	New Ireland, PNG	Ross (1988)
Taiof	MM	off Bougainville, PNG	Ross (in press-f)
Tahitian	Pn	Tahiti, Polynesia	Lynch (1998)
Takia	NNG	Karkar Island, PNG	Ross (n.d.)
Tamambo	SO	Malo Island, Vanuatu	Jauncey (1997)
Tami	NNG	Huon Peninsula, PNG	Ross (1988)
Tangga	MM	off New Ireland, PNG	Ross (1988)
Tawala	PT	Milne Bay Province, PNG	Ezard (1991, 1997)

language	subgroup	location	source
Tench	St.M	St Matthias group, PNG	Ross (1988)
Teop	MM	Bougainville, PNG	Mosel & Spriggs (n.d.), Mosel & Reinig (n.d.)
Tiang	MM	New Ireland	Ross (1988)
Tigak	MM	New Ireland, PNG	Beaumont (1979)
Tinrin	SO	New Caledonia	Osumi (1995)
Titan	Adm	Admiralty Islands, PNG	Lusk (n.d.)
To'aba'ita	SES	Malaita, Solomon Islands	Lichtenberk (1993)
Tokelaun	Pn	Tokelau, Polynesia	Hovdhaugen (1989)
Tolo	SES	Guadalcanal, Solomon Islands	Crowley (1986)
Tongan	Pn	Tonga	Churchward (1953, 1959)
Tuam	NNG	off Huon Peninsula, PNG	Ross (1988)
Tungag	MM	New Hanover, PNG	Ross (1988), Beaumont (1988)
Ubir	PT	south-east Papua	Anonymous (n.d.)
Ulithian	Mic	Ulithi Atoll, Caroline Islands	Sohn & Bender (1973)
Ura	SO	Erromango, Vanuatu	Lynch (2001)
Vitu	MM	French Islands, PNG	Ross (in press-a)
Volow	SO	Banks Islands, Vanuatu	Codrington (1885)
Vovo	SO	Malakula, Vanuatu	Tryon (1976)
Vuras	SO	Banks Islands, Vanuatu	Codrington (1885)
Wampar	NNG	Markham Valley, PNG	Ross (1988)
Wayan Fijian	Fij	Waya, Fiji	Pawley & Sayaba (n.d.)
West Guadalcanal	SES	Guadalcanal, Solomon Islands	Tryon & Hackman (1983)
Wetamut	SO	Santa Maria, Vanutatu	Tryon (1976)
Wogeo	NNG	Schouten Islands, PNG	Ross (1988)
Woleaian	Mic	Woleai Atoll, Caroline Islands, Micronesia	Sohn (1975), Sohn & Tawerilmang (1976)
Wusi	SO	Espiritu Santo, Vanuatu	Tryon (1976)
Wuvulu	Adm	western Admiralty Islands, PNG	Lynch, Ross & Crowley (in press)

language	subgroup	location	source
Xârâcùù	SO	New Caledonia	Lynch (in press)
Yabem	NNG	Huon Peninsula, PNG	Ross (1988)
Yalu	NNG	Markham Valley, PNG	Ross (1988)
Yapese	_	Yap Island, Micronesia	Jensen (1977a, 1977b), Ross (1996)
Zabana	MM	Santa Isabel, Solomon Islands	Fitzsimons (1989)

2. NON-OCEANIC LANGUAGES

language	subgroup	location	source
Acehnese	WMP	northern Sumatra, Indonesia	Durie (1985)
Atayal	Fm	Taiwan	Zeitoun & Huang (2000)
Bacan Malay	WMP	off Halmahera, Indonesia	Adelaar (1984, 1992)
Banjarese Malay	WMP	south Kalimantan, Indonesia	Adelaar (1984, 1992)
Buru	CMP	Buru, eastern Indonesia	Grimes (1991)
Cebuano-Visayan	WMP	central Philippines	Yap & Bunye (1971), Cabonce (1983)
Chamorro	WMP	Micronesia	Tryon (1995a)
Iban	WMP	Sarawak, Malaysia	Adelaar (1984, 1992)
Ilocano	WMP	Luzon, Philippines	Rubino (2000)
Kelantan Malay	WMP	west Kalimantan, Indonesia	Adelaar (1984, 1992)
Karo Batak	WMP	northern Sumatra, Indonesia	Woollams (1996)
Ledo (Kaili)	CMP	Sulawesi, Indonesia	Evans (1996, n.d.)
Malagasy	WMP	Madagscar	Codrington (1885), Tryon (1995a)
Mantauran Rukai	Fm	Taiwan	Zeitoun & Huang (2000)

language	subgroup	location	source
Mayrinax	Fm	Taiwan	Zeitoun & Huang (2000)
Minangkabau	WMP	Sumatra, Indonesia	Adelaar (1984, 1992)
Muna	CMP	off southeast Sulawesi, Indonesia	van den Berg (1989)
Paiwan	Fm	Taiwan	Zeitoun & Huang (2000)
Palauan	WMP	Belau	Ross (1995b), Tryon (1995a)
Pazeh	Fm	Taiwan	Blust (1999), Zeitoun & Huang (2000)
Seediq	Fm	Taiwan	Holmer (1996), Zeitoun & Huang (2000)
Seraway Middle Malay	WMP	southern Sumatra, Indonesia	Adelaar (1984, 1992)
Standard Malay	WMP	Malaysia	Adelaar (1984, 1992)
Taba	SHWNG	Makian Island, Indonesia	Bowden (1997, n.d.)
Tagalog	WMP	Philippines	Schachter & Otanes (1972), Ramos (1971), English (1977), Himmelmann (n.d.)
Toba Batak	WMP	northern Sumatra, Indonesia	Van der Tuuk (1971)
Tukang Besi	CMP	Tukang Besi Islands, eastern Indonesia	Donohue (1995)
Wolio	CMP	off southeast Sulawesi, Indonesia	Anceaux (1988)

Appendix B: reconstructions and their supporting data

This appendix comprises the reconstructions presented in the thesis and their supporting data. The sources of data used to compile the cognate sets are listed in Appendix A.

1 PROTO OCEANIC

	POc	***bitiŋ**	*stone oven*
		***bitiŋ-i-**	*cook sth in stone oven*
NNG:	Wampar	puciŋ	*bake*
NNG:	Yalu	biciŋ	*bake*
MM:	Maringe	biti	*oven*
MM:	Gao	biti	*earth/stone oven*
SES:	'Are'are	piini-	*steam b/n hot stones*
SES:	Arosi	bii	*cook in hot stones*
		bii-ŋi-	*cook in hot stones (tr.)*

	POc	***garas**	*scrape, scratch, peel*[1]
		***garas-i-**	*scrape, scratch, peel sth*
NNG:	Arop-Lukep	garai	*scratch (skin)*
NNG:	Manam	gara-s-	*scrape*
PT:	Ubir	gagar	*to scratch*
SES:	Lau	gara	*scrape, grate (yam)*
		gara-si-	*scrape, grate sth*
SES:	'Are'are	kara	*grate, scrape*
		kara-si-	*grate yams, graze*
SES:	Sa'a	kara	*scrape, grate intr*
		kara-si-	*scrape sth*

[1] Other verbs similar in form and meaning to this one are reconstructed in Lichtenberk (1994) and Ross, Clark and Osmond (1998).

	POc	***inum**	*to drink*
		***inum-i-**	*to drink sth*
NNG:	Psohoh	inum	*drink*
NNG:	Hote	-num	*drink*
MM:	Tigak	inum	*drink*
MM:	Nehan	inum	*drink*
SES:	Kwara'ae	ono	*drink*
		ono-mi-	*drink of (tr.)*
Mic:	Puluwat	wɨn	*drink*
		wɨnum-i-	*drink (tr.)*
Mic:	Carolinian	ɨl	*drink*
		ɨlɨm-i	*drink (tr.)*
Fij:	Boumaa	unu	*drink*
		unu-ma	*drink (tr)*
Pn:	Takuu	unu	*drink*
		unu-mia	*drink*
Pn:	Maori	inu-mia	*drink*

	POc	***kani-kani**	*to eat*
		***kani-**	*to eat sth*
Adm:	Titan	anáan	*eat*
		áni	*eat sth*
NNG:	Manam	ʔan-	*eat sth*
PT:	Sinaugoro	ɣaniɣani	*eat*
		ɣani-	*eat sth*
PT:	Saliba	kai-kai	*eat*
		kai-	*eat sth*
PT:	Motu	ani-ani	*eat*
		ani-	*eat sth*
SO:	Tamambo	xanxani	*eat*
		xani	*eat sth*
SO:	North-East Ambae	ka-kani	*eat*
		kani-	*eat sth*
SO:	Paamese	kani-an	*eat*
		ḳani	*eat sth*

Mic:	Woleaian	xaŋi	*eat sth*
Fij:	Boumaa	'ani	*eat sth*
		'ana	

	POc	***kati**	*to bite*[2]
		***kati-**	*to bite sth*
NNG:	Labu	-kasi	*bite (into pieces)*
PT:	Motu	kasi-	*snap with teeth*
MM:	Kara (east)	ɣet	*bite; burn, cook*
SES	W. Guadalcanal	ɣati	*bite*
SO:	Paamese	kati-at	*bite, itch (intr)*[3]
		kati	*bite, itch sth*
SO:	Mota	xat	*chew*
Fij	Wayan	kati-	*bite sth*
Pn	Samoan	'ati	*bite, nip*
Pn	Hawai'ian	'aki	*bite, nip*

	POc	***kaput**	*wrap, cover*
		***kaput-i-**	*wrap, cover sth*
NNG:	Pono	-kaukau	*cover*
PT:	Sudest	gavo	*wrap up*
MM:	Kara (east)	ɣəfute	*wrap*
SS:	'Are'are	'ahu	*wrap, cover*
		'ahu-i-	*around*
SS:	Arosi	ahu	*wrap up*
		ahu-i-	*wrap up tr.*
Pn:	Niuean	kapu-ti	*overspread, cover*
Pn:	Samoan	aputi	*cover up*

	POc	***karat**	*bite*
		***karat-i-**	*bite sth*
NNG:	Tami	kalat	*chew*
NNG:	Manam	ʔara-t-i-	*bite*

[2] Geraghty (1990) also presents this reconstruction.
[3] This Paamese intransitive form is derived by reduplication (Crowley 1992).

MM:	Ramoaaina	kərat	*bite (tr)*
MM:	Ganoqa	garata	*bite intr*
		garat-i-	*bite tr*
SES:	Tolo	hala	*bite (fish of hook)*
		hala-ti-	*bite*
SES	Kwaio	'ala	*bite*
		'ale-	*bite (tr)*
SO:	Wetamut	ɣarat	*bite*

	POc	***kila**	*to know, be knowledgeable*
		***kila-i-**	*to know sth*
NNG:	Takia	ile	*see, perceive by eye*
MM:	Piva	kinai	*know (fact)*
MM:	Nduke	ɣiɣilae-	*know*
SES:	Gela	ɣila	*know, be expert at*
SES:	Tolo	hila	*to name, say name of sth*
SO:	Paamese	kile	*be knowledgeable*
		kile-	*know sth*
SO:	Lewo	kili-	*know, understand sth*
Mic:	Mortlockese	kile	*know, understand*
		kilē-	*know s.o.*
Mic:	Carolinian	xule	*know, learn (intr)*
		xulē-	*know s.o./sth*
Fij:	Wayan	kilati-	*know, comprehend sth*
Fij	Boumaa	'ila-	*know, understand sth*

	POc	***kinit**	*pinch, pluck/pick (plants).*
		***kinit-i-**	*pinch, pluck/pick (plants) tr*
St.M:	Mussau	kiniti	*pinch*
NNG:	Mangap-Mbula	-kin-	*pluck off*
MM:	Sursurunga	kinit	*pinch*
SES:	Gela	ɣini	*pinch (off), nip*
		ɣini-ti-	*pinch (off), nip tr*
SES:	'Are'are	'ini-	*pluck (leaves), pinch sth*
SO:	Paamese	kiniti	*pinch, pluck, pick sth*

Mic:	Kosraean	kin	*pinch, pick intr*
		kini-s-	*pinch, pick*
Fij:	Wayan	kini	*be pinched, picked*
		kini-ti-	*pinch, pick (leaves)*
Pn:	Samoan	'ini	*pinch, nip with nails*

	POc	***kita**	*be seen / to see*
		***kita-i-**	*to see sth*
NNG:	Matukar	ita	*see*
NNG:	Manam	ita	*see, look at*
PT:	Gumawana	gita	*to see (intr)*
		gite	*to see sth (tr)*
PT:	Ubir	it	*to see*
		ita-	*to see sth/s.o.*
MM:	Meramera	ite	*to see*
Mic:	Carolinian	gitt	*look for, search*
Pn	Tongan	kite	*to appear*
		kite-'i	*to suspect, dream*
Pn	Māori	kite-	*to see, find*

	POc	***kojom**	*husking stick, to husk*
		***kojom-i-**	*to husk sth (coconut)*
Adm:	Titan	kucúm	*husking stake*
NNG:	Medebur	kujumi	*to sharpen sth (stick)*
NNG:	Manam	ʔozo	*to husk*
		ʔozo-m-	*to husk sth*
NNG:	Wogeo	kojo	*husking stick*
MM:	Vitu	koðom-i-	*dehusk (coconut)*
MM:	Tiang	kəsim	*to sharpen sth (stick)*
MM:	Notsi	kocom	*pierce, husk*
SES:	Lau	'oto	*poke, thrust, jab*
		'oto-mi-	*poke, jab sth*
SES:	'Are'are	oto	*war spear (n)*
		oto-mi-	*to spear sth*
SO:	Paamese	kosemi	*to husk sth (coconut)*

Mic:	Mokilese	kot-kot	*husk with a stick*
		koto-m-	*husk sth with a stick*
Pn:	Samoan	'oso	*digging stick*

	POc	***ma-liŋi**	*be poured, spilt*
		***liŋi-**	*pour sth out*
NNG:	Sio	ma-liŋi	*(liquid) run away*
		liŋi	*pour sth out*
NNG:	Mangap-Mbula	mi-liŋ	*spilt*
		liŋ	*pour*
PT:	Misima	ma-liŋi-n	*(liquid) run away*
		liŋi	*pour sth out*
SES:	Arosi	ma-riŋi	*running out/over*
		riŋi	*pour, incline a vessel*
SO:	North-East Ambae	mwa-liŋi	*spill (intr.), be spilt*
		liŋi	*pour, spill sth*
Pn:	Tongan	ma-liŋi	*be poured out, spilt*
		liŋi	*to pour (out)*
Pn:	Samoan	ma-liŋi	*spilt, pour down*
		liliŋi	*pour*

	POc	***loŋoʀ**	*be heard, audible / to hear*
		***loŋoʀ-i-**	*to hear sth*
NNG:	Manam	loŋo	*hear*
		loŋo-r-	*hear sth/s.o.*
SES:	Longgu	roŋo	*hear, ask*
		roŋo-ni-	*hear sth*
SES:	Lau	rongo	*hear, listen*
		rongo-a	*hear, listen to sth*
SO:	Paamese	longlong	*aware, wise*
		longe	*hear, listen tr*
Fij:	Wayan	rogo	*be heard*
		rogo-	*hear sth*
Fij:	Boumaa	rogo	*be heard*
		rogo-ca	*hear sth*

Pn:	Tongan	ongo	*sound, be heard*
		ongo-'i	*hear sth*
Pn:	Samoan	logo	*be perceived by hearing*
		fa'a-logo	*hear sth, listen to sth*

	POc	***lujan**	*to load*
		***lujan-i-**	*to load sth*
PT:	Gapapaiwa	uan	*load sth (boat)*
PT:	Motu	udauda	*load cargo*
SES:	Longgu	luda-ŋi-	*to load sth (cargo)*
		luda-	*to load sth (canoe)*
SES:	Sa'a	lude	*carry cargo*
		lude-ŋi-	*carry cargo (tr)*
Mic:	Carolinian	auta	*load sth, fill sth up*
Fij:	Wayan	usa	*be shipped, carried as cargo*
		usa-ni-	*to carry sth as cargo*
Pn:	Tongan	uta	*carry, convey*
Pn:	Takuu	uta	*to load*
		uta-ni-	*to load sth*

	POc	***maqurip**	*live, be alive*
		***pa[ka]-maqurip-i-**	*cause to live, revive*
NNG:	Poeng	mauli	*alive, have life*
		pa-mauli	*cause life*
MM:	Nakanai	mahuli	*come to life*
		vi-mahuli	*restore to life*
SES:	Lau	mouri	*be alive*
		mouri-si-	*to survive, escape alive from*
	Kwaio	moori	*be alive*
		fa'a-moori-	*revive, cure*
		moori-si-	*survive death because of*
	Arosi	mauri	*live, flourish*
		mauri-si-	*in good health from*
		ha'a-mauri	*to make flourish*
Mic.:	Woleaian	maiuriu	*fresh, green*
		ge-mairuiu	*make it green*

Pn:	Tongan	mo'ui	*live, be alive, in health*
		faka-mo'ui	*cause to live, give life to, restore to health*
Pn:	East Futunan	ma'uli	*vivre, vivant*
		faka-ma'uli	*sauver; guérir*

	POc	***matakut**	*be afraid, fear*
		***matakut-i-**	*be afraid of s.o./sth*
		***pa[ka]-matakut-i-**	*to frighten s.o.*
NNG:	Mangap-Mbula	-moto	*be afraid, fear*
		-pa-moto	*frighten, make afraid*
	Poeng	matau	*fear (intr.)*
		matau-e	*fear (tr.)*
		pa-matau	*frighten*
	Manam	mataʔu	*be afraid*
		mataʔu-r-	*fear*
PT:	Gumawana	matoita	*be afraid (tr./intr.)*
		matoite	*be afraid of (tr.)*
	Tawala	-matouta	*be afraid*
		-matout-e-	*fear sth/s.o.*
	Iduna	matauta	*fear (intr.)*
		mata-matau-hi	*fear (tr.)*
	Saliba	matausi	*be scared*
		he-matausi-	*scare s.o.*
MM:	Maringe	m^{h}aɣu	*be frightened (by) (tr./intr.)*
		fa-m^{h}a-m^{h}aɣu	*frighten, scare (tr.)*
SES:	Gela	mataɣu	*to fear, be afraid*
		mataɣu-ni-	*to be afraid of*
	Tolo	matahu	*frightened, scared*
		matahu-ni-	*to fear, be afraid of*
	Longgu	ma'u	*to be frightened*
		ma'u-ni-	*to be frightened of*
		va'a-ma'u-	*to frighten*
	Kwaio	ma'u	*afraid, shy*
		ma'u-ni-	*be afraid of*
		fa'a-ma'u-	*frighten*

	Arosi	maa'u	*to fear*
		maa'u-si-	*to fear (tr.)*
SO:	Tamambo	mataxu	*feel scared*
		matau-xi	*fear sth*
	Paamese	metau	*afraid (intr.)*
		metau-ni	*fear, afraid of (tr.)*
Mic.:	Carolinian	mesaɣu	*have fear, be afraid*
		mesaɣu-a	*fear sth, be afraid of*
Fij.:	Wayan	mataku	*be afraid, scared*
		mataku-ci-	*fear sth be afraid of*
		vaka-mataku-ci-	*frighten s.o.*
Pn:	Samoan	mata'u	*fear, hold in awe*
		fa'a-mata'u	*frighten, threaten*

	POc	***mate**	*die, be dead*
		***pa[ka]-mate-**	*cause to die, kill*
NNG:	Mangap-Mbula	-metmeete	*about to die (of trees)*
		-pa-memeete	*make unconcious*
PT:	Motu	mase	*to die*
		ha-mase-	*cause to die, kill*
MM:	Hoava	mate	*be dead*
		va-mate-	*kill*
		mate-ni-	*die from/of*
SES:	Gela	mate	*unconcious, dead*
		mate-a	*kill, extinguish*
	Tolo	mate	*die, be dead*
		mate-a	*extinguish, turn off*
	Longgu	mae	*die, be dead*
		va'a-mae-	*kill*
		mae-si-	*to die of*
	Lau	mae	*die, be dead*
		mae-li-	*kill, cause death*
		mae-si-	*to die of*
	Kwaio	mae	*die, be dead, comatose*
		fa'a-mae-	*cause to be dead*
		mae-ri-	*die as a result of*

	Arosi	mae	*die*
		ha'a-mae-si-	*kill*
		mae-si	*die from; kill*
SO:	North-East Ambae	mate	*die, be dead*
		vaka-mate	*make s.o./sth die*
Fij:	Boumaa Fijian	mate	*die*
		va'a-mate-	*make dead, kill*
	Wayan Fijian	mate	*die, be dead*
		vaka-mate-	*kill, put to death*
Pn:	Samoan	mate	*die*
		fa'a-mate	*kill (animal), put out (fire)*
Pn:	East Futunan	mate	*mourir*
		faka-mate	*se suicider; être anesthésié; hypnotiser (serpent)*

	POc	***pani-**	*to give to s.o.*[4]
NNG:	Gitua	waŋ	*to give to s.o.*
NNG:	Manam	an-	*to give to s.o.*
PT:	Motu	heni-	*to give to s.o.*
PT:	Mekeo (east)	peŋi-	*to give to s.o.*
MM:	Tangga	fen	*to give*
MM:	Hoava	poni-	*to give to s.o.*
SES:	Inakona	vani-	*to give to s.o.*
Mic:	Puluwat	faŋ	*to give*

	POc	***papi**	*to cook in a ground oven*
		***papi-**	*to cook sth in a ground oven*
MM:	Tabar	vavi	*bake in oven*
SES:	Longgu	vavi-	*rebake sth*
SES:	Kwaio	fafi	*oven*
		fafi-a	*cook, bake sth in leaf oven*
SES:	'Are'are	hahi-	*cook between stones*
Fij:	Bauan	vavi	*bake in oven*
		vavi-	*bake sth in oven*

[4] See Lichtenberk (1985) for a detailed discussion of this form and its reflexes.

	PMP	*batuʀ	*plait, weave*[5]
	POc	***patuʀ***	*weave, plait*
		patuʀ-i-	*weave, plait sth*
St.M:	Mussau	atu	*plait (hair), weave*
PT:	Motu	hatu-	*plait, weave, twist rope*
SES:	Tolo	vatuli-	*weave sth*
SES:	Lau	fao	*weave*
		fao-li-	*weave tr*
SO:	North-East Ambae	vatu	*weave*
Mic:	Carolinian	fayfay	*to weave*
		fayi	*weave, plait (cloth)*
Pn:	Samoan	fafatu	*make sth, assemble sth*

	POc	***paus***	*weave, plait*
		paus-i-	*weave, plait sth*
NNG:	Kilenge	pau	*weave*
MM:	Tigak	aus	*weave*
SES:	Gela	vau	*weave, plait*
		vau-hi-	*weave, plait sth*
SES:	Longgu	vaovao	*weave intr*
		vao-si-	*weave sth*
SO:	Nguna	vausi-	*weave sth*

	POc	***piro***	*to twist together, wring*
		piro-	*to twist sth together, wring sth*
PT:	Molima	vilo-	*twist*
SES:	Tolo	viro-	*wind up*
SES:	Lau	firo-	*twist*
Mic:	Kiribatese	viro-	*twist, screw*
Pn:	Tongan	fio	*mix, mingle*
Pn:	Nukuoro	hilo-	*mix, braid sennit strands*

[5] Blust (n.d.)

	POc	***poli**	*to buy*
		***poli-**	*to buy sth*
NNG:	Mangsing	ol	*buy*
MM:	Tabar	vovori	*buy*
SES:	Tolo	voli-	*buy, purchase sth*
SES:	Kwaio	foli-	*buy*
SO:	Paamese	vuli	*buy, pay for*
Fij:	Boumaa	voli	*be bought*
		voli-	*to buy sth*

	POc	***ponuq**	*to be full*
		***pa[ka]-ponuq-i-**	*to fill sth, make sth full*
NNG:	Poeng	ponu	*to be full*
PT:	Motu	honu	*to be full*
		ha-honu	*to fill sth up*
MM:	Bali	vonuku	*to be full*
MM:	Maringe	fodu	*to be full*
		fa-fofodu	*to fill sth*
SES:	Tolo	vonu	*to be full*
		vonu-li-	*to fill sth up*
SES:	Kwaio	fonu	*to be full*
		fa'a-fonu-	*to fill sth up*
SES:	Arosi	honu	*to fill*
		ha'a-honu-	*to fill sth*
SO:	Kumak	põlõk	*to be full*
SO:	Nemi	punuk	*to be full*
Mic:	Kiribatese	on	*to be full, be filled*
		ka-ona	*to fill sth up*
Pn:	Tongan	fonu	*to be full*
		faka-fonu	*to fill sth*

	POc	***puat**	*to carry, be carried*
		***puat-i-**	*to carry sth*
NNG:	Kaiwa	vuat	*carry*
MM:	Tigak	pousi	*carry*

SES:	Lau	fua	*carry (as haversack)*
		fue-	*carry sth (as haversack)*
Fij:	Wayan	vua	*be carried (on stick or pole)*
		vua-ti-	*carry sth (on stick or pole)*
Pn:	Tongan	fua	*lift, carry*

	POc	***ta-pʷalaq**	*be chopped*
		***pʷalaq-i-**	*to chop sth*
Adm:	Lou	tapal	*break*
NNG:	Mangp-Mbula	paala	*break, cut in two*
NNG:	Poeng	ma-pala	*break, split open*
		pale	*cut split sth*
PT:	Misima	pʷal	*strip (leaves from stem)*
MM:	Vitu	(ɣutu)valaɣ-i-	*split (wood)*
MM:	Ramoaaina	ta-palaŋ	*halved, broken*
		palaŋ	*split down centre*
MM:	Bilur	parak	*split (wood)*
SES:	Malango	tapala	*split*
SES:	Sa'a	pʷā	*break, crack*
Mic:	Carolinian	falafal	*carve, do adze work*
		fala	*chop, split, cut sth*
Mic:	Woleaian	belibeli	*to snap, break off*
		beli-ŋ-agi	*to be snapped off*
		beli-ŋ-ii-	*to snap sth off*

	POc	***qatuŋ**	*strike; pound*
		***qatuŋ-i-**	*to strike sth; pound sth*
Adm:	Titan	atíŋ	*shoot, spear (tr.)*
		atíŋi	*shoot, spear (tr.)*
NNG:	Kove	watu	*break nut by hitting w/ stone*
NNG:	Malalamai	atu	*hit*
PT:	Motu	atu-	*press pottery into shape (w/ wooden beater on stone)*
MM:	Teop	asun	*strike, beat, kill*
MM:	Papapana	atune	*hit*

SES:	Lau	sau	*beat, pound; kill, harm*
		sau-ŋi-	*beat, pound; kill, harm (tr.)*
SES:	Kwaio	launi-	*pound (eg. pudding mixture)*
SES:	Arosi	sau	*crush; strike down*
		sau-ni-	*crush; strike down (tr.)*
SO:	Nguna	atuŋi	*hit w/ stick or club; kill*
Mic:	Carolinian	ætiŋi	*pound, hammer sth*

	POc	***ra(b,p)u**	*to hit, spear*
		***ra(b,p)u-**	*to hit, spear sth*
NNG:	Tuam	i-ravu	*hit*
NNG:	Gitua	rap	*hit*
MM:	Mono-Alu	lapu	*kill*
SES:	Lengo	labu-	*hit, kill s.o./sth*
SES:	Tolo	rabu-	*tatoo*
SES:	Lau	labu-	*strike down, hit*
SES:	Kwaio	labu-	*spear sth*

	POc	***ʀa(b,p)us**	*to hit, kill*
		***ʀa(b,p)us-i-**	*to hit, kill s.o./sth*
NNG:	Kove	i-hau	*kill*
NNG:	Lusi	řao	*hit*
PT:	Ubir	rab	*hit, growl at*
		rab-i-	*hit s.o.*
MM:	Teop	rapisi	*hit, beat*
SES:	Lau	rabu	*beat, hit, flog*
		rabu-si-	*beat, hit, flog sth*
SES:	Arosi	rabu-si-	*strike, whip, hit sth*

	Poc	***ʀaŋo**	*be dry*
		***ma-ʀaŋo**	*be dry*
		***ka-ʀaŋo**	*be dry*
		***raŋo-**	*to dry sth*
St. M	Mussau	malaŋo	*dry*
NNG:	Manam	maraŋo	*be dry, withered*

MM:	Sursurunga	reŋreŋ	*dry (tr.)*
		maraŋ	*be old, dry*
MM:	Patpatar	raŋ	*to dry sth*
MM:	Maringe	raŋo	*wilt and die (intr.)*
MM:	Zabana	karaŋo	*dry*
MM:	Blablanga	kraŋo	*dry*
SES:	Longgu	laŋalaŋa	*be dry*
SES:	Kwaio	laŋa	*be dry*
SES:	Arosi	raŋo	*withered, dead*

	POc	***rua**	*two, be two*
		***paka-rua**	*to happen/do twice*
PT:	Sinaugoro	ruarua	*two*
		vaɣa-ruarua	*do/happen twice*
MM:	Nakanai	i-lua	*two*
		vaka-lua	*twice*
SES:	Arosi	rua	*two*
		ha'a-rua	*twice*
SO:	North-East Ambae	rue	*two*
		vaga-rue	*(do) twice*
Fij:	Bauan	rua	*two*
		vaka-rua	*twice*
Pn:	Samoan	lua	*two*
		fa'a-lua	*(do) twice*

	POc	***ʀubat**	*to loosen, to be loosened*
		***ta-ʀubat**	*be loosened, untied*
		***ʀubat-i-**	*to loosen, untie sth*
Adm:	Titan	lu^{m}βuti	*to untie sth*
NNG:	Manam	rube	*untie*
		rube-t-	*untie sth*
MM:	Nakanai	ta-lube	*loose, untied*
		lube	*loosen, undo sth*
MM:	Teop	taropusu	*work loose, untie*
SES:	Gela	luba	*slacken, loose*

		luba-ti-	*to let sth go, slacken sth*
SES:	Longgu	luba	*to be relaxed, loose*
SES:	Kwaio	luba	*remove, loosen*
		a-luba	*loose, loosened*
		lube-a	*loosen, untie sth*
SO:	Lewo	luña	*come off*
		ta-luña	*to become loose*
		luña-ri	*become untied*

	POc	***salap**	*to sweep, broom*
		***salap-i-**	*to sweep sth*
NNG:	Yabem	salep	*broom*
PT:	Misima	hala	*to sweep*
SES:	Lau	tala	*to sweep*
		tala-fi-	*to sweep sth*
SES:	Arosi	tatara	*to sweep*
		tatara-hi-	*to sweep sth*
SO:	Nguna	sara	*to sweep*
Pn:	Samoan	salu	*to sweep*

	POc	***saqit**	*to sew*
		***saqit-i-**	*to sew sth*
St.M:	Mussau	saki	*to sew*
NNG:	Yalu	(i)saer	*to sew*
SES:	Longgu	tai-tai	*to sew (intr)*
		tai-	*to sew sth*
SES:	Kwaio	tai	*sew, close up*
		tai-	*to sew sth*
Mic:	Carolinian	tēte	*do sewing, stitching*
		tē-i-	*to sew sth*
Pn:	Samoan	saisai	*tie up, bind*
		saisai-tia	*be tied up, arrested*

	POc	***ma-saʀek**	*be torn*
		***saʀek-i-**	*to tear*
NNG:	Mangap-Mbula	-raaza	*tear, break sth*
		-ma-raaza	*break open, be torn*
NNG:	Sio	saraka	*to tear*
NNG:	Amara	sarak	*to tear*
NNG:	Takia	-masare	*be/become torn*
NNG:	Manam	ma-sare	*be broken, split*
		sere-ʔ-	*to break, split sth*
SO:	Mota	sare	*to tear*
		ma-sare	*be torn*
Mic:	Carolinian	táári-ŋ-egh	*to be torn, ripped*
		táári-ŋ-i-	*to tear, rip sth*
Mic:	Woleaian	tara-g-agi	*be pulled up, peeled back*
		tara-g-i-	*pull sth up, take sth apart*
Pn:	Tongan	hae	*to tear*
		ma-hae	*be torn, rent*
Pn:	Samoan	sae	*to tear*
		mā-sae	*to be torn, tear (n)*

	POc	***silip**	*enter bush, hunt*
		***silip-i-**	*to go into somewhere*
NNG:	Mindiri	sili	*hunt*
MM:	Tungag	sili	*hunt*
MM:	Maringe	hili	*hunt*
SES:	Gela	hili	*hunt, wander, go into forest*
		hili-vi-	*to go into somewhere*
SES:	Sa'a	sili	*hunt*
		sili-hi-	*to go into/enter somewhere*
Mic:	Carolinian	tilifi	*to search, hunt for sth.*

	POc	***soka**	*to pierce, be pierced*
		***soka-i-**	*to pierce sth*
St.M:	Mussau	soa	*stab, shoot*
NNG:	Sio	soe	*stab*

NNG:	Takia	isue	*pierce, penetrate, spear sth*
MM:	Notsi	coka	*stab*
MM:	Sursurunga	so-i	*spear, strike sth*
SES:	Lau	toe-a	*hit, strike, pierce sth*
Mic:	Mokilese	tok	*to stab, poke, inject (intr)*
		tɔkɔ	*to stab, poke, inject sth*
Pn:	Anuta	toka-i	*to stab*

	POc	***solat**	*to carry, be carried*
		***solat-i-**	*to carry sth*
Adm:	Lou	silɔt	*carry, as on a stick on the shoulder*
NNG:	Sio	sola	*carry*
NNG:	Poeng	tole-	*carry sth on shoulder*
MM:	Sursurunga	solsolat	*carry on shoulder*
SES:	Gela	hola	*to take, carry*
		hola-ti-	*to take, carry sth*
SES:	'Are'are	tora	*carry, bring*
		tore-	*carry, take sth*
Fij:	Bauan	cola	*carry on the shoulders*
		cola-ta	*carry sth on the shoulders*

	POc	***susuk**	*to pierce, be pierced*
		***susuk-i-**	*to pierce sth*
		***suki-**	*to pierce sth*
St.M:	Mussau	su-i	*sew*
MM:	Label	suk	*sew*
SES:	Tolo	tsuki-	*prick, pierce, impale, hook, bait*
SES:	Lengo	suki-	*give an injection to s.o.*
SES:	Longgu	susu'i-	*stick into skin, like a splinter*
SES:	Lau	susu	*prick, impale, sting*
		susu-i-	*to prick, impale sth.*
SES:	Kwaio	susu	*inject, jab, sting*
		susu-'i	*jab, sting sth*
SES:	Arosi	susu	*prick, pierce, impale*
		susu-'i-	*pierce, prick, impale sth*
SO:	Nguna	suki	*pierce sth*

Fij:	Bauan	cuki	*loosen ground with a stick*
		cuki-ta	*loosen the ground with a stick (tr)*
Pn:	Tongan	hūkia	*to be pricked*
Pn:	Samoan	su'i	*to pierce, sew*

	POc	***tanum**	*to bury, plant*
		***tanum-i-**	*to bury, plant sth*
	PECOc	***tanum-akin-i-**	*to bury sth, cover with earth*
NNG:	Manam	tano	*to plant*
		tano-m-	*to plant sth*
SES:	Kwaio	ano-mi-	*plant, bury*
		ano-me'eni-	*plant, bury*
Pn:	Tongan	tanu	*to bury*
		tanu-maki	*to cover with earth*
Pn:	Samoan	tanu	*cover over, bury*
		tanu-mi-	*cover over*
		tanu-ma'i	*cover over*

	POc	***taŋis**	*to cry*
		***taŋis-i-**	*to cry for s.o.*
		***taŋis-akin-i-**	*to cry about, to mourn s.o.*
NNG:	Manam	taŋi	*to cry*
		taŋi-r-	*to weep for s.o.*
		taŋi-r-a?-	*to weep, shed tears*
SES:	Gela	taŋi	*cry*
		taŋi-hi-	*cry for*
		taŋi-hagi	*cause s.o. to cry*
SES:	Kwaio	ani	*cry*
		ani-si-	*cry for*
		ani-te'eni-	*try to get sth by crying about it*
SES:	Arosi	aŋi	*cry*
		aŋi-si-	*cry for*
		aŋi-ta'i	*cry out at*
Fij:	Wayan	tagi	*cry*
		tagi-ci-	*cry for sth*
		tagi-cakini-	*cry over sth, lament*

Fij:	Bauan	tagi	*cry*
		tagi-ca	*cry for s.o.*
		tagi-caka	*cry over sth./s.o.*
Pn:	Samoan	tagi	*cry*
		tāgi-si-	*cry over s.o.*
		tagi-sa'i	*miss s.o.*

	PMP	*tin[d]av	*genau betrachten*[6]
	POc	***tiro(p)**	*to look*
		***tirop-i-**	*to look at sth*
NNG:	Gitua	tiro	*look for*
SES:	Gela	tiro	*to gaze*
SES:	Tolo	tiro-hi-	*to look for sth*
SES:	Arosi	iro	*look for, collect*
		iro-hi-	*look for sth*
Fij:	Bauan	tiro	*to look at (reflection)*
		tiro-va	*to look at sth*
Pn:	Tongan	siro-fi	*look at sth steadily*
Pn:	Māori	titiro	*to look at*
		tiro-hia	*to be looked at*

	POc	***tolu**	*three, be three*
		***pa[ka]-tolu**	*to happen/do three times*
PT:	Sinaugoro	toitoi	*three*
		vaɣa-toitoi	*do three times*
MM:	Nakanai	i-tolu	*three*
		vaka-tolu	*three times*
SES:	Arosi	oru	*three*
		ha'a-oru	*three times*
SO:	North-East Ambae	tolu	*three*
		vaga-tolu	*(do) three times*

[6] Dempwolff (1938)

Fij:	Bauan	tolu	*three*
		vaka-tolu	*three times*
Pn:	Samoan	tolu	*three*
		fa'a-tolu	*(do) three times*

	POc	***to[n,d]om**	*to swallow*
		***to[n,d]om-i-**	*swallow sth*
NNG:	Manam	tono	*to swallow*
MM:	Vitu	todomi	*to swallow*
MM:	Nakanai	sogumu	*to swallow*
SES:	Gela	sono	*to swallow*
		sono-mi-	*to swallow sth*
		sono-magi	*to cause s.o. to swallow*
SES:	Kwaio	ono-mi-	*to swallow sth*
		ono-me'eni	*to swallow sth*
Mic:	Marshallese	jorom	*to suck up, drink*
Mic:	Woleaian	sossor	*to suck, drink, sip*
		soro-m-i-	*to drink, suck up, sip sth*

	POc	***wase**	*to distribute, be distributed*
		***wase-**	*to distribute sth*
NNG:	Tami	wat	*divide*
NNG:	Sissano-Arop	-wɛs	*distribute, deal out*
NNG:	Manam	ware-	*to count sth*
MM:	Vitu	vaðe-ni-	*distribute sth*
SES:	Longgu	wate-	*to give, send sth*
SES:	Kwaio	k^{w}ate-	*give sth*
Pn:	Tongan	vahe-	*to divide, distribute sth*
Pn:	Samoan	vavae	*to divide, spearate*

2. PROTO CENTRAL/EASTERN OCEANIC

	PCEOc	***garup**	*swim*
		***garup-i-**	
		***garup-akin-i-**	
SES:	Sa'a	olo, olo-olo	*to swim*
		olo-hi-	*to swim for and get sth*
		olo-ha'ini	*to swim with sth (holding sth)*
SO:	Mota	garu	*to swim, wade*
		garu-vi-	*to swim for*
		garu-vag	*to swim, wade with sth*
Fij:	Bauan	qalo	*to swim*
		qalo-va	*to swim to somewhere*
		qalo-vaka	*to swim with sth*
Fij:	Wayan	qua	*swim*
		qua-vi-	*swim across sth*
Pn:	Tongan	kaukau	*swim*
		kau-faki	*swim with sth*

	PCEOc	***peles**	*squeeze, hold*
		***peles-i-**	*squeeze, hold sth*
SES:	Tolo	vele	*to hold*
		vele-si-	*to hold sth*
SES:	Kwaio	fele	*pinch, squeeze*
		fele-si-	*pinch, squeeze sth*
		fele-te'eni	*to press sth*
SO:	Lametin	βirisi	*to squeeze*
SO:	Wusi	βirihi	*to squeeze*
SO:	Vovo	βerih	*to squeeze*

	PCEOc	***pilos**	*twist*
		***pilos-i-**	*twist sth*
SES:	Lau	filo	*twist together, twist round*
		filo-si-	*twist together, twist round tr*

SES:	Arosi	hiro	*revolve*
		hiro-si-	*revolve, spin sth*
SO:	Paamese	vilesi	*turn sth around, over*
Fij:	Wayan	vilo	*be squeezed, strained*
		vilo-ci	*to squeeze and strain sth (kava)*
Pn:	Tongan	filo	*to spin, to make thread*
		filo-hi	*to spin sth, to make thread*
Pn	Samoan	filo	*twirl, thread*

3. PROTO SOUTHEAST SOLOMONIC

	PSS	***a(g,ŋ)o**	*crawl*
		***a(g,ŋ)o-vi-**	*crawl to*
		?*a(g,ŋ)o-vakini-	*cause s.o. to crawl / crawl with sth*
SES:	Gela	ago	*crawl*
		ago-vi-	*crawl upon*
		ago-vagi	*cause to*
SES:	Longgu	aŋo	*crawl*
		aŋo-vi-	*crawl to sth*
		aŋo-ta'ini-	*crawl with sth*
SES:	Kwaio	aŋo	
		aŋo-fi-	*creep towards sth, stalk*
SES:	Arosi	aŋo	*crawl*
		aŋo-hi-	*to crawl along upon sth*

4. PROTO MICRONESIAN

	PMic	***p^{w}ala-ŋ-i**	*to split, break*[7]
	PWMic	***p^{w}ala-ŋ-aki**	*to be split, broken*
Mic:	Kosraean	falfal	*split, saw lengthwise*
		fuhluh-ng	*split*
WMic:	Marshallese	bōl̦n̄-ak	*split open, spread legs wide open*
TRP:	Pingilapese	pwal	*to split, have an operation*
		pwæla-ng-æk	*to split (a coconut)*
		pwæla-ng	*to split (a coconut)*
TRP:	Mokilese	pwal	*broken, split*
		pwala-ng	*to break, split*
TRK:	Chuuk	pwúún	*be broken*
TRK:	Woleaian	belibeli	*to snap off, break off*
		beli-ng-agi	*to be snapped off, fall off the main body*
		beli-ng-ii	*snap it off, break it off*

	PMic	***weke-d-i**	*to turn sth over*
	PWMic	***weke-d-aki**	*to turn*
Mic:	Kosraean	ek	*turn (over)*
		eka-s	*uncover, reveal, turn over, dig out*
WMic:	Marshallese	ukok	*change, translate*
		ukok-t-ak	*alternate, fluctuate, chaning continually*
TRP:	Pingilapese	weke-d-æk	*to turn sth over*
		weki-d	*to turn sth over*
TRP:	Ponapean	wiki-d-ek	*to turn, in direction*
		wiki-d	*turn over, change (opinion)*
TRP:	Mokilese	uku-d-ek	*turned*
		uku-d	*to try to turn over*

[7] Proto Micronesian **p^{w}ala-ŋ-i-* 'to split, break sth' is a reflex of Proto Oceanic **p^{w}alaq-i-* 'to chop sth', although the Proto Micronesian thematic consonant is innovative as **q* was lost in Proto Micronesian. See Chapter 5, section 5.6.1.3 for a discussion of this form.

TRK:	Carolinian	wogho-wogh	*to turn food when cooking*
		woghe-t-ágh	*to turn and face in opposite direction, face backwards*
		weghe-t-i	*to flip sth over*
TRK:	Woleaian	wegi	*to turn over, be converted*
		wegi-t-agi	*to turn around, be turned over*
		wegi-t-ii	*turn it, change it, transfer it, convert it*

	PMic	***kɔ-t-i**	*to hook, catch*
	PWMic	***kɔ-t-aki**	*to be hooked, caught*
Mic:	Kosraean	ka	*fish hook*
		ka-i	*catch with a hook, hook*
WMic:	Marshallese	kōāj	*hook, barb*
		koj-ek	*caught on a hook, get hooked*
TRP:	Ponapean	kehs	*hook*
		kehs-e	*to hook*
TRP:	Mokilese	koahj	*barb*
		koahj-di	*caught on a barb*
TRK:	Chuuk	éé	*fish hook*
		éé-yi	*hook sth on a fish hook*
TRK:	Carolinian	ghéé	*fish hook*
		ghéé-y	*to hook it (fish)*
TRK:	Woleaian	geo	*fish hook*
		geo-t-agi	*to be hooked, connected, pierced with a hook*
		geo-s-ii	*hook it, connect it by a fish hook, pierce with a hook*

	PMic	***pine-t-i**	*to shut, close*
	PWMic	***pine-t-aki**	*to be shut, closed*
Mic:	Kosraean	fohnfohn	*substituting, jammed, blocked*
		fono-s	*block, jam, obstruct, stop, fill in*

WMic:	Marshallese	penj-ak	*covered, out of sight, sth in one's way or place*
		pinej	*hide, obstruct, cover*
TRP:	Ponapean	pinapin	*to be patched, blocked, sealed; stoppered*
		pina	*to patch, block, seal*
TRP:	Mokilese	pin	*cover, stopper*
		pinapin	*to cover, fill a hole*
		pina	*to cover, fill a hole*
TRK:	Chuuk	pinepin	*to be stopped up, corked, blocked*
		pinee-y	*plug up (hole), contradict (talk)*
TRK:	Puluwat	pináá-y	*to prevent, stop*
TRK:	Carolinian	pile-s-agh	*to become blocked, to be patched*
		pilee-y	*to close, cover up, put lid on sth*
TRK:	Woleaian	pile-pile	*n. stopper, plug; vi. to be closed*
		pile-t-agi	*to be closed, shut*
		pile-s-ii	*close it, shut it (off)*

	PMic	***tala-(d,z)-i**	*to loosen, untie*
	PTP	***tala-(d,z)-aki**	*to be loosened, untangled*
Mic:	Kosraean	taltal	*untie, loosen*
		tuhl-a	*untie, spread out*
WMic:	Marshallese	jaļjaļ	*loosen, unwind, unsnarl, take apart (tr)*
		jeļa-ti	
TRP:	Mokilese	jalad-ek	*to realease, untie, free, to be one's own boss*
		jalad	*to release, untie*
TRK:	Chuuk	seneti	*to untie, loosen*
TRK:	Puluwat	háleti-y	*to untie, disentangle*
TRK:	Carolinian	sálit-ágh	*to be loosened, untied*
TRK:	Woleaian	tattala	*to be free, solved, untangled*
		tala-t-agi	*to be untangled, free, solved, liberated*
		tala-t-ii	*untangle it, free it, solve it*

	PMic	***tū-k-i***	*to open*
	PNT	***tū-k-aki***	*to be open*
CMic:	Kiribatese	uki	*an opening*
		ka-uk-a	*to open, disclose*
TRK:	Chuuk	ssuuk	*be open, opened*
		suuk-i	*open*
TRK:	Carolinian	suusu	*to be opening sth*
		suu-gh	*to be open*
		suu-gh-ágh	*to be opened*
		suu-gh-i	*to open sth*
TRK:	Woleaian	suusuu	*to open, disclose*
		suu-g-agi	*to be opened, disclosed*
		suu-g-ii	*open it, disclose it*

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